# SERVICEMANUAL
# ALEX

handicare

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2010-01

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# 1 Technical specifications

## *1.1 Product specification sheet of the Alex*

| Manufacturer: | **Handicare®** |
|---|---|

| SPECIFICATIONS | | | | | |
|---|---|---|---|---|---|
| DIMENSIONS | | ALEX INDOOR / outdoor | | ALEX OUTDOOR / indoor | |
| Axle configuration | | FWD | RWD | FWD | RWD |
| Maximum user's weight | kg | 160 | 160 | 160 | 160 |
| Batteries (C20) | Ah | 60 / 74 | 60 / 74 | 60 / 74 | 60 / 74 |
| Total weight excluding batteries (60Ah C20) | kg | 87 | 87 | 87 | 87 |
| Total weight including batteries | kg | 130,6 | 130,6 | 130,6 | 130,6 |
| Total length | mm | 1120 | 1080 | 1130 | 1090 |
| Total width | mm | 610 | 610 | 640 | 640 |
| Seat angle | ° | 0 – 7,5 | 0 – 7,5 | 0 – 7,5 | 0 – 7,5 |
| Seating depth | mm | 440 - 520 | 440 - 520 | 440 - 520 | 440 - 520 |
| Seat width | mm | 380 - 555 | 380 - 555 | 380 - 555 | 380 - 555 |
| Seat height excluding cushion | mm | 400 – 47,5 | 400 – 47,5 | 41,5 - 490 | 41,5 – 490 |
| Seat height including cushion | mm | 470 - 545 | 470 - 545 | 48,5 - 560 | 48,5 - 560 |
| Back angle | ° | 89 - 118 | 89 - 118 | 89 - 118 | 89 – 118 |
| Back height | mm | 520 - 570 | 520 - 570 | 520 - 570 | 520 - 570 |
| Lower leg length | mm | 330 - 560 | 330 - 560 | 330 - 560 | 330 - 560 |
| Armrest height | mm | 220 - 290 | 220 - 290 | 220 - 290 | 220 - 290 |
| From front of armrest to back rest | mm | 370 - 450 | 370 - 450 | 370 - 450 | 370 - 450 |
| Diameter of swivel wheels (Indoor) | mm | 225 | 225 | - | - |
| Diameter of swivel wheels (Outdoor) | mm | - | - | 255 | 255 |
| Diameters of drive wheels | mm | 325 | 325 | 350 | 350 |
| Tyre pressure of swivel wheels | bar | 2.0 bar | 2.0 bar | 2.5 bar | 3.5 bar |
| Tyre pressures of drive wheels | bar | 2.7 bar | 2.7 bar | 3.5 bar | 3.5 bar |
| PERFORMANCE | | | | | |
| Maximum speed | km/h | 6 / 9 | 6 / 9 | 6,5 / 10 | 6,5 / 10 / 12,5 |
| Range of action (ISO 7176-4) | km | 50 (74Ah) | 50 (74Ah) | 50 (74 Ah) | 50 (74 Ah) |
| Dynamic stability (max. safe slope) | ° | 6 (10,5%) | 10 (17,5%) | 6 (10,5%) | 10 (17,5%) |
| Obstacle height | mm | 60 | 60 | 75 | 75 |
| Obstacle height with curb climber | mm | - | 100 | - | 115 |
| Ground clearance | mm | 70 | 70 | 85 | 85 |
| Turning radius (ISO 7176-5) | mm | 660 | 910 | 660 | 910 |
| ELECTRICAL OPTIONS | | | | | |
| Electric back adjustment | ° | 88 - 120 | 88 - 120 | 88 - 120 | 88 - 120 |
| Electric tilt adjustment | ° | 2,5 - 25 | 2,5 - 25 | 2,5 - 25 | 2,5 - 25 |
| Electrical high/low | mm | 0 - 300 | 0 - 300 | 0 - 300 | 0 - 300 |
| Electric leg rest adjustments | ° | 6 - 70 | 6 - 70 | 6 - 70 | 6 - 70 |
| CERTIFICATES | | | | | |
| CE | | √ | √ | √ | √ |
| EN 12182 (1997) | | √ | √ | √ | √ |
| EN 12184 (1999) | | √ | √ | √ | √ |
| Classes | | B | B | B | B |
| ISO 7176-19 | | √ | √ | √ | √ |

# 2 Maintenance

## *2.1 Maintenance table*

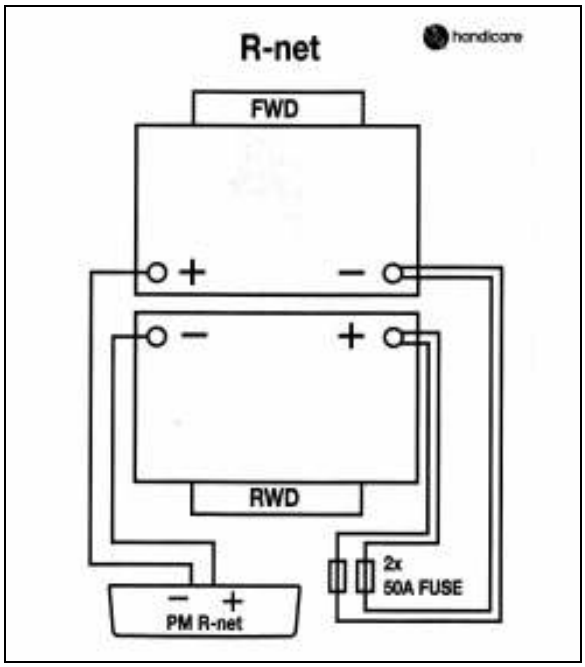
Below, we have indicated what needs to be checked, how often this should be done, and by whom.

| Time | Description | To be carried out by | |
|---|---|---|---|
| | | User | Dealer |
| Daily | • Charging the batteries, after each use. | X | - |
| Weekly | • Checking the tyre pressures. | X | - |
| Monthly | • Cleaning the wheelchair. | X | - |
| | • Cleaning the upholstery (if necessary). | X | - |
| Annually | • Inspection of the electrical system. | - | X |
| | • Checking the batteries. | - | X |
| | • Inspection of the drive. | - | X |
| | • Inspection of the mechanical parts. | - | X |
| | • Inspection of the bearings. | - | X |
| | • Inspection of the suspension. | - | X |
| | • Checking the tyres. | - | X |
| | • Checking all fastenings and bolts: tighten if necessary. | - | X |

## *2.2 Batteries*

*For maintenance, see the following documentation:*
- *Regulations concerning the batteries.*
- *User manual of the battery charger.*

The wheelchair has 'dry' gel batteries. These dry batteries (dry-fit) are entirely sealed and maintenance free.
The connection diagram for the batteries is provided on a sticker inside the battery tray.




- *Make sure that the batteries are always well charged.*
- *Do not use the wheelchair if the batteries are almost flat. This may damage the batteries and you run the risk of an unintended standstill.*
- *The use of 'wet' batteries is not permitted. If the batteries need to be replaced, use only dry batteries.*

# 3 Troubleshooting

## *3.1 R-Net faultfinding table*

| Trip Text | Trip Code | Description |
|---|---|---|
| Joystick Error | - | The most common cause of this trip is if the joystick is deflected away from center before and during the time the control system is switched on. The joystick displaced screen will be displayed for 5 seconds, if the joystick is not released within that time then a trip is registered. Although a trip screen is not displayed the system log will show the trip and numbers of occurrences.<br>• Ensure that the joystick is centered and power-up the control system.<br>If the trip is still present then the joystick or Joystick Module may be defective. |
| Low Battery | - | This occurs when the control system detects that the battery voltage has fallen below 16V.<br>• Check the condition of the batteries and the connections to the control system.<br>If the trip is still present after the batteries and connections have been checked, then the Power Module may be defective. |
| High Battery | - | This occurs when the control system detects that the battery voltage has risen above 35V. The most common reasons for this are overcharging of the battery or bad connections between the control system and the batteries.<br>• Check the condition of the batteries and the connections to the control system.<br>If the trip is still present after the batteries and connections have been checked, then the Power Module may be defective. |
| M1 Brake Error | 1505 | This occurs when the control system detects a problem in the solenoid brakes or the connections to them.<br>• Check the solenoid brakes, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the Power Module may be defective. |
| M2 Brake Error | 1506 | This occurs when the control system detects a problem in the solenoid brakes or the connections to them.<br>• Check the solenoid brakes, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the Power Module may be defective. |
| M1 Motor Error | 3B00 | This occurs when the control system detects that a motor has become disconnected.<br>• Check the motors, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the Power Module may be defective. |
| M2 Motor Error | 3C00 | This occurs when the control system detects that a motor has become disconnected.<br>• Check the motors, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the Power Module may be defective. |
| Inhibit Active | 1E01<br>1E09<br>1E0A | This occurs when any of the Inhibit inputs are active and in a latched state.<br>The actual inhibit that is active is indicated by the last 2 digits in the Trip Code.<br>• Cycle the power. This will drop out of Latched Mode which might clear the trip.<br>• Check all wiring and switches connected to the indicated Inhibits.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Joystick Calibration Error | - | This occurs when the Joystick Calibration process has not been successful.<br>• Enter OBP and attempt calibration.<br>If the trip is still present after the above has been attempted, then the Joystick Module may be defective. |

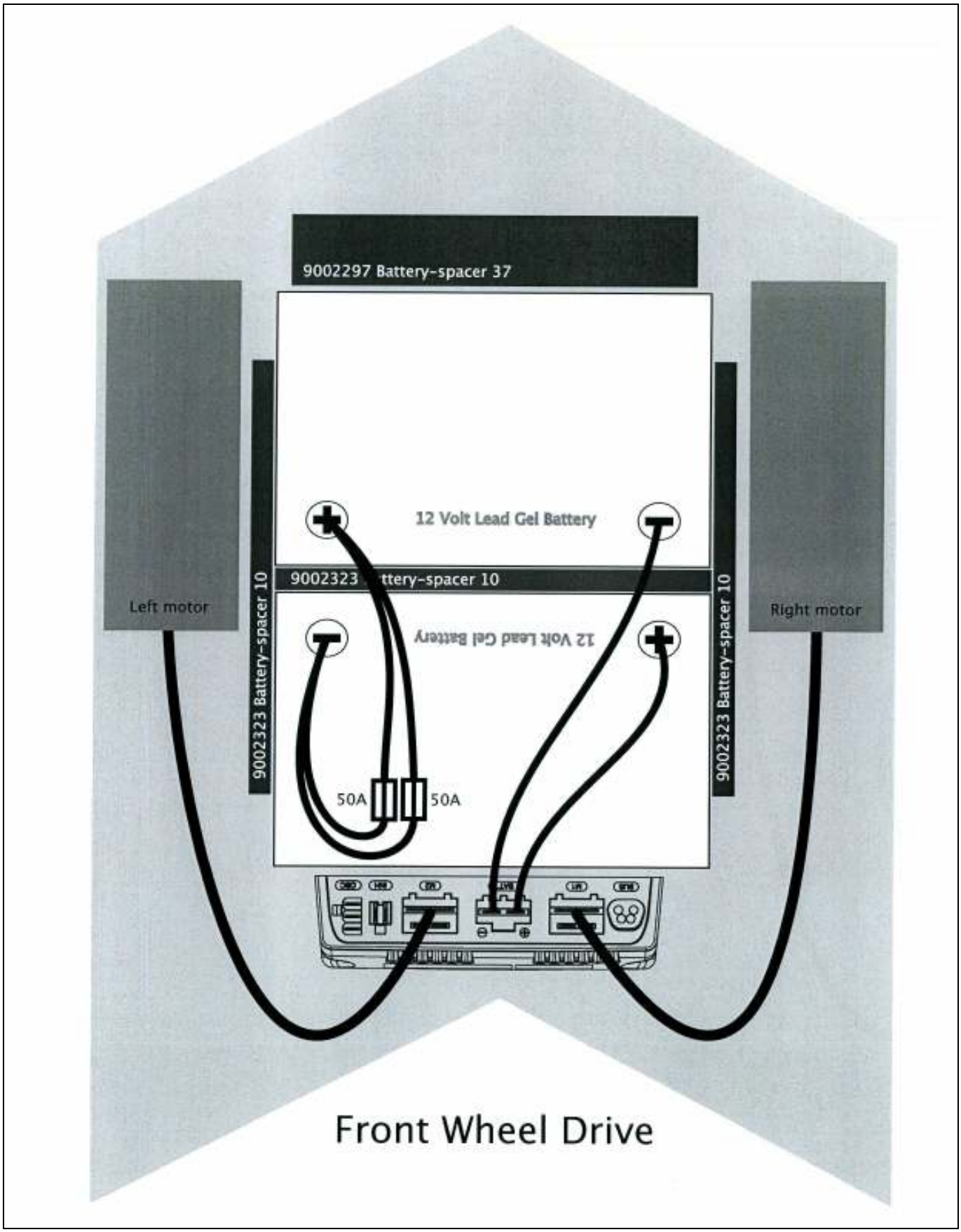
| Trip Text | Trip Code | Description |
|---|---|---|
| Latched Timeout | - | This occurs when the control system detects that the Latched Timeout programmed time has been exceeded. For example, the Input Device, Joystick, Head Aray, Sip and Puff, etc.) has not been operated frequently enough.<br>The trip is a notification of why the control system has dropped out of Latched Mode.<br>• Cycle the power.<br>• Initiate Latched Mode.<br>If the trip is still present after the above checks have been made, then the Input Device may be defective. |
| Brake Lamp Short | - | This occurs when the control system detects a short in the Brake Lamp Circuit.<br>• Check the brake lamps, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Left Lamp Short | 7205 | This occurs when the control system detects a short in either of the Lamp Circuits.<br>• Check the lamps, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Right Lamp Short | 7209 | This occurs when the control system detects a short in either of the Lamp Circuits.<br>• Check the lamps, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Left Indicator Lamp Short | 7206 | This occurs when the control system detects a short in either of the Indicator Circuits.<br>• Check the indicators, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Right Indicator Lamp Short | 720A | This occurs when the control system detects a short in either of the Indicator Circuits.<br>• Check the indicators, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Left Indicator Lamp Failed | 7207 | This occurs when the control system detects a failure in either of the Indicator Circuits. This is most likely to be an indicator bulb failure.<br>• Check the indicator bulbs, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Right Indicator Lamp Failed | 7208 | This occurs when the control system detects a failure in either of the Indicator Circuits. This is most likely to be an indicator bulb failure.<br>• Check the indicator bulbs, cables and connections to the control system.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Over Current | - | This occurs when the control system detects an excessive amount of current in an Actuator Channel.<br>This may be due to a faulty endstop switch, actuator motor, cables or connections.<br>• Check the movement of the actuator is not obstructed.<br>• Check the endstop switches (if fitted) are terminating the power to the actuator motor.<br>If the trip is still present after the above checks have been made, then the ISM may be defective. |
| Overtemp. (Actuators) | - | This occurs when the control system detects that the ISM's actuator circuitry has become too hot. The control system will cease drive to the actuator motor in question.<br>• Allow the ISM to cool.<br>• If the ISM is frequently overheating check the condition of the actuator motors and the connections to them.<br>• If the trip persists contact your service agent. |

| Trip Text | Trip Code | Description |
|---|---|---|
| Overtemp. (Lamps) | - | This occurs when the control system detects that the ISM's actuator circuitry has become too hot. The control system will cease drive to the actuator motor in question.<br>• Allow the ISM to cool.<br>• If the ISM is frequently overheating check the condition of the actuator motors and the connections to them.<br>• If the trip persists contact your service agent. |
| DIME Error | - | This occurs when the control system detects an identification conflict between two modules in the system.<br>If a new module has been introduced:<br>• Disconnect the new module and cycle the power.<br>• If no trip is present connect the new module to the system and cycle the power.<br>• If the trip reappears then the new module must be the cause of the problem.<br>If there has been no additions:<br>• Disconnect one module at a time and cycle the power.<br>If the trip is still present after the above checks have been made, contact your service agent. |
| Memory Error | - | This is a non specific memory error which could be caused by any of the modules within the system.<br>• Check all cables and connections.<br>• Cycle the power.<br>If the trip is still present and the system contains 3rd party Modules:<br>• Disconnect all the non PGDT modules and cycle the power.<br>If this has cleared the trip:<br>• Connect each 3rd party module in turn, cycling the power each time.<br>• If the trip reappears after one of the power cycles then the last module to have been added to the system must be defective.<br>If the trip is still present after the above checks have been made, then the PM may be defective. |
| PM Memory Error | - | This is a specific Power Module based trip.<br>• Check all cables and connections.<br>• Using the R-net PC Programmer, re-program the control system. This should be done with either the most current specific program file for the wheelchair or the manufacturers original programming file.<br>If the trip is still present after the above checks have been made, then the PM may be defective. |
| Bad Cable | - | This occurs when the control system detects a fault in the wiring in the communication cables between any of the modules.<br>• Check all cables and connections for continuity.<br>• If there is any visible damage to cables, replace and cycle power.<br>• Disconnect one cable from the system at a time cycling the power after each disconnection.<br>If the trip is still present after the above checks have been made, then the PM may be defective. |
| Bad Settings | - | This occurs when the control system detects incorrect or invalid program settings.<br>• Check all parameter settings and re-program the control system using the R-net PC Programmer.<br>• Make a note of the current parameter settings and then reset the control system to default settings.<br>• Re-program the required settings in small groups, cycling the power after each group to see if the trip occurs.<br>If the trip is still present after the above checks have been made, then the PM may be defective. |
| Module Error | - | This occurs when the control system detects a trip within a specific module. The module will be identified on the diagnostics Screen.<br>• Check all cables and connections.<br>• Cycle the power.<br>If the trip is still present after the above checks have been made, then the module identified may be defective. |

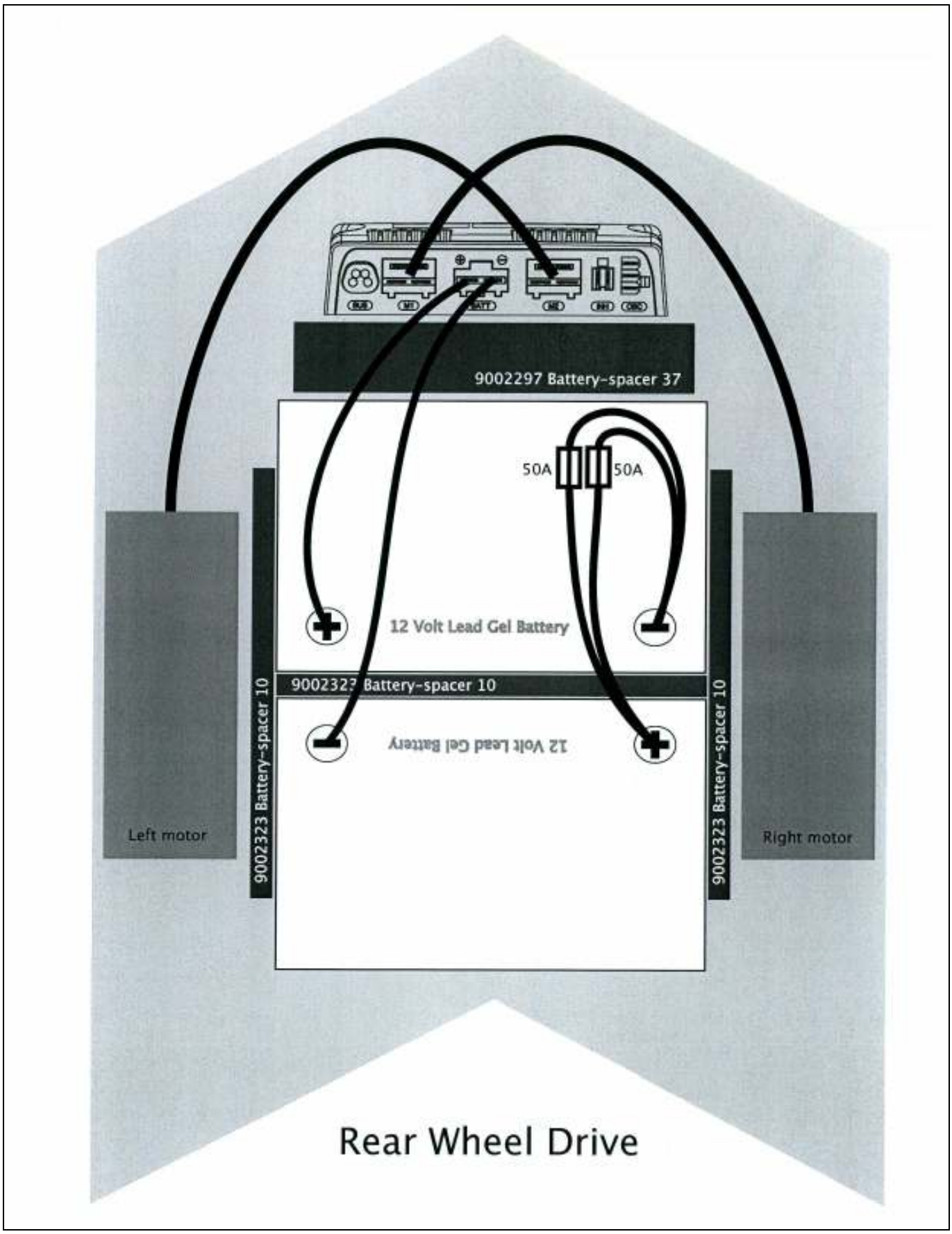
| Trip Text | Trip Code | Description |
|---|---|---|
| System Error | - | This occurs when the system detects a trip which cannot be attributed to a specific module.<br>• Check all cables and connections.<br>• Cycle the power.<br>If the trip is still present and the system contains 3rd party Modules:<br>• Disconnect all the none PGDT modules and cycle the power.<br>If this has cleared the trip:<br>• Connect each 3rd party module in turn, cycling the power each time.<br>• If the trip reappears after one of the power cycles then the last module to have been added to the system must be defective.<br>If the trip is still present after the above checks have been made, then the PGDT control system may be defective. |
| SID Detached | - | The Omni has detected that the Specialty Input Device (SID) has become disconnected.<br>• Check all cables and connectors between the Omni and the SID.<br>If the error persists:<br>• Check that the setting of the parameter, 9-Way Detect, is appropriate for the SID that is being used. For example, if the SID has no detect-link, then this parameter should be set to Off.<br>If the trip is still present after the above checks have been made, then the Input Device may be defective. Contact your service agent. |
| User Switch detached | - | The Omni has detected that the User Switch has become disconnected.<br>• Check all cables and connectors between the Omni and the User Switch.<br>If the trip is still present after the above checks have been made, then the User Switch may be defective. Contact your service agent.<br>If it is required to use the Omni without a User Switch being connected, then the parameter, Switch Detect, should be set to Off. If a User Switch is not used the responsibility for that decision lies with the healthcare professional. |
| Gone to Sleep | - | This occurs when the control system has been left inactive for a time greater than the parameter Sleep Timer.<br>An entry is made in the system log each time this occurs. |
| Charging | - | This occurs when the control system detects that a charger is connected to either Inhibit 1 or Inhibit 3. Refer to section 2.3 for connection details<br>The Battery charging screen will be displayed during charger connection.<br>An entry is made in the system log each time this occurs.<br>If an On-Board Charger is used:<br>• Disconnect the charger from the AC supply.<br>If an Off-Board Charger is used:<br>• Disconnect the charger from the Wheelchair.<br>If the trip is still present after the charger has been disconnected then the Joystick Module may be defective. |

# 4 Electrical Diagrams R-Net

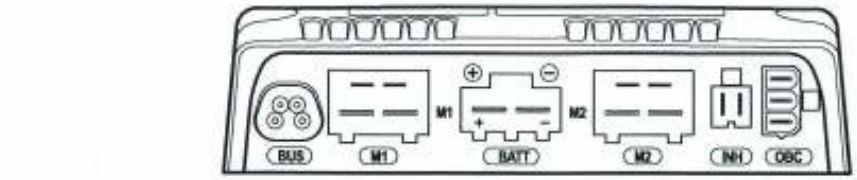
## *4.1 Front wheel drive configuration and battery position.*

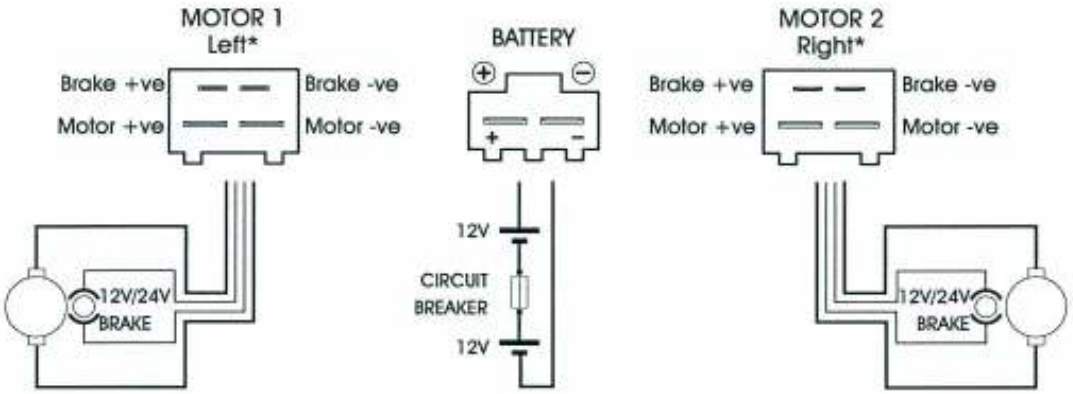


### *4.2 Rear wheel drive configuration and battery position.*



### *4.3 R-net Power Module connections*




* Assumes no Motor Swap programming has been undertaken

| Joystick Movement | M1 | M 2 | Actual Movement | |
|---|---|---|---|---|
| Forward | +ve | +ve | Forward | ** |
| Backward | -ve | -ve | Backward | ** |

** Assumes no Joystick Orientation, Invert M1 Direction or Invert M2 Direction programming has been undertaken

INHIBIT 2

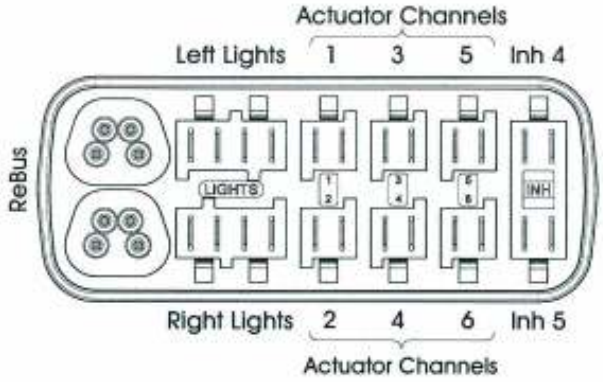
| INH-2 | Function |
|---|---|
| 1 | 0V |
| 2 | Inhibit 2 |

ON-BOARD CHARGER

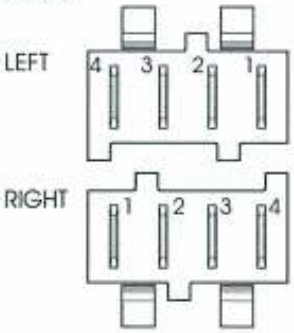
| OBC | Function |
|---|---|
| 1 | Battery +ve |
| 2 | Inhibit 3 |
| 3 | 0V |

The Power Module is shipped with rubber bungs inserted into some of the connectors. Only remove the rubber bung from the required connectors.

### *4.4 R-Net ISM Module connections*

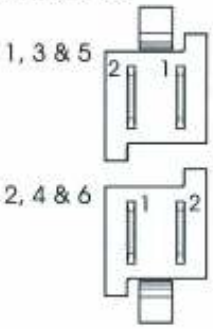



LIGHTS




| Lights | Function |
|---|---|
| 1 | Gnd |
| 2 | Lights |
| 3 | Indicator |
| 4 | Brake/Horn |

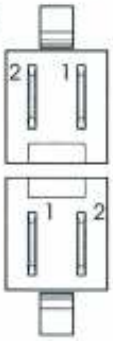
ACTUATORS




| Joystick Movement | Pin 1 | Pin 2 | Actuator Movement | |
|---|---|---|---|---|
| Forward | -ve | +ve | Channel Up | * |
| Backward | +ve | -ve | Channel Down | * |

* Assumes no Joystick Orientation or Invert Axis Direction programming has been undertaken

INHIBITS 4 & 5

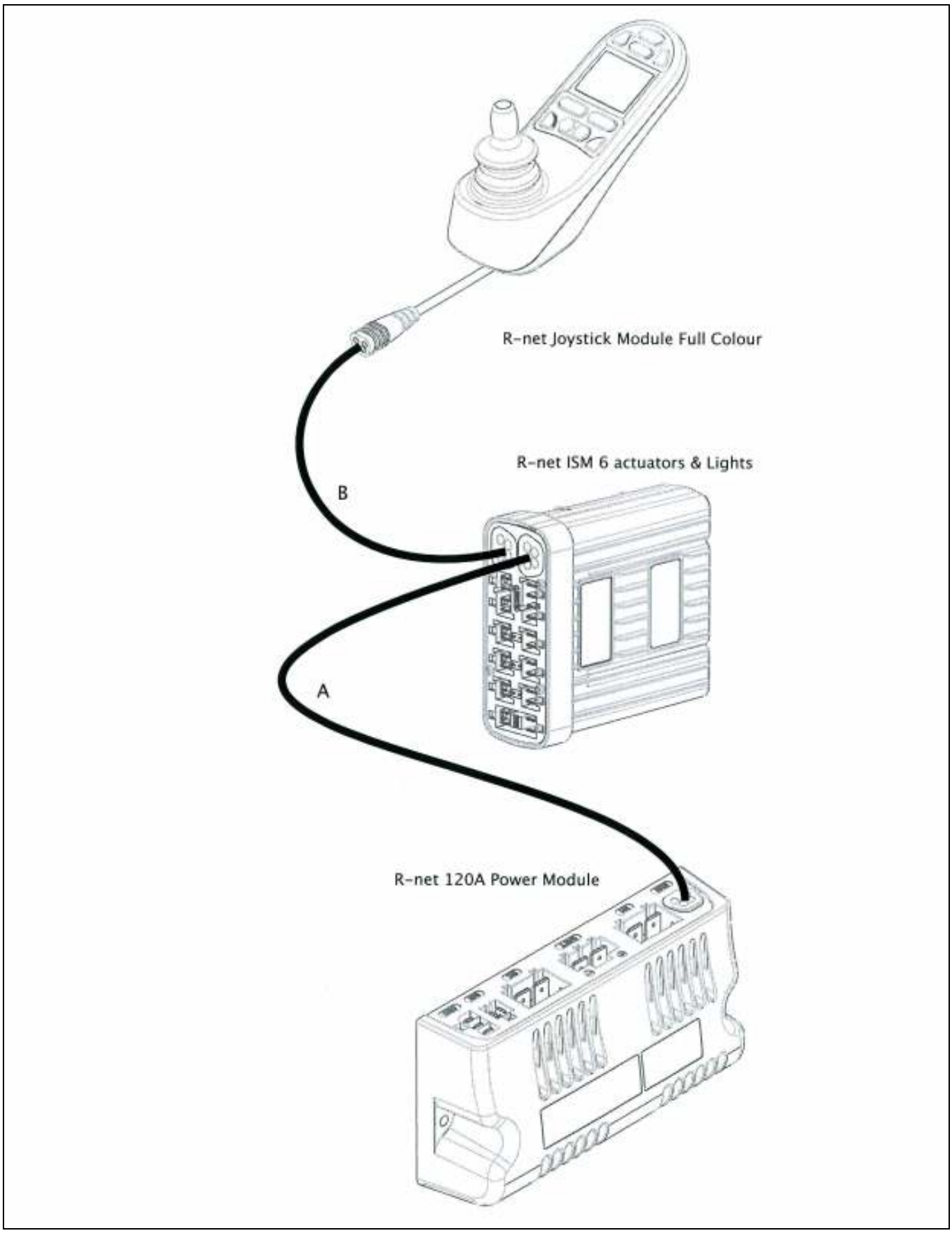



| INHIBIT - 4 | Function |
|---|---|
| 1 | 0V |
| 2 | Inhibit 4 |

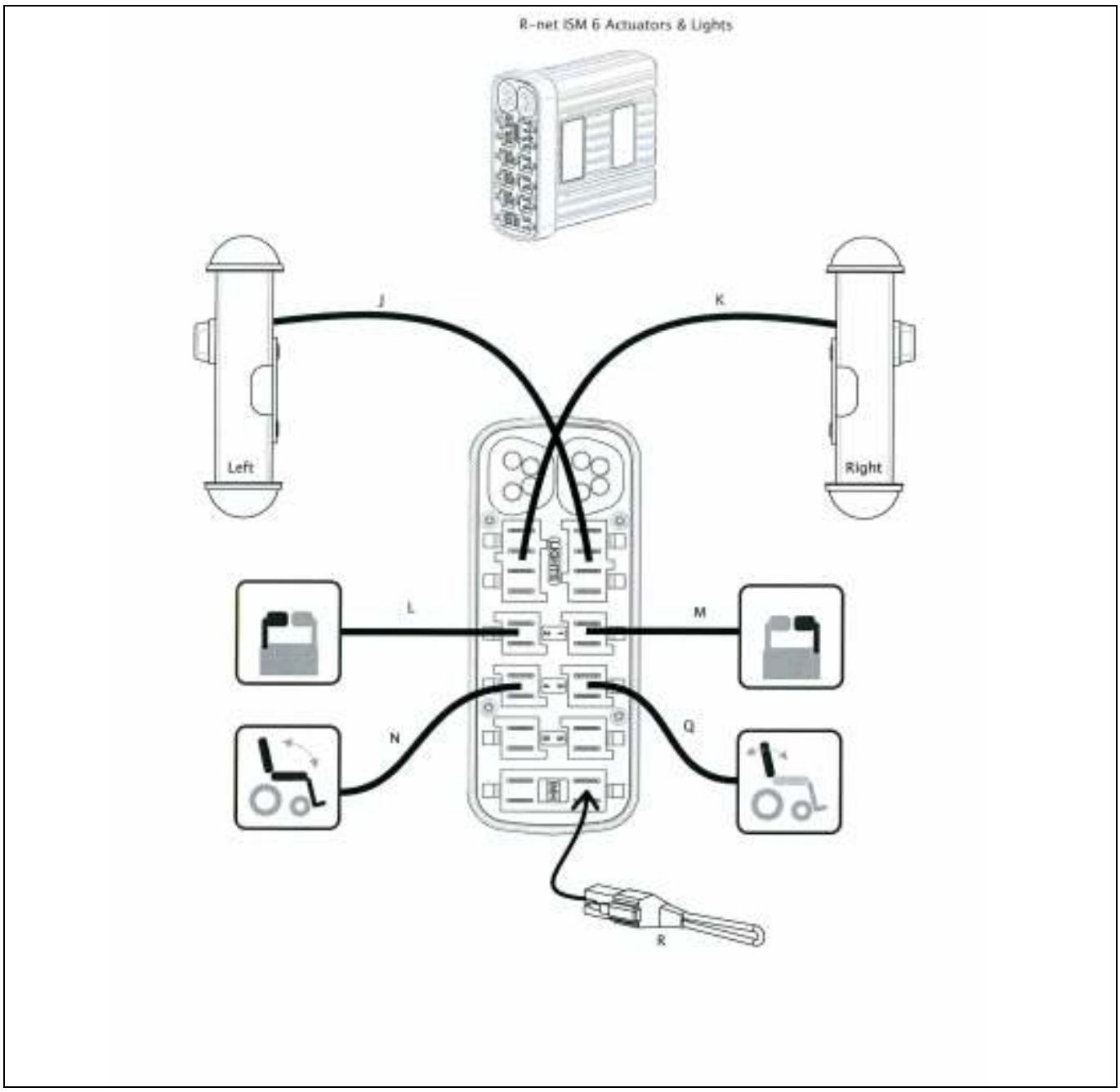
| INHIBIT - 5 | Function |
|---|---|
| 1 | 0V |
| 2 | Inhibit 5 |

The ISM is shipped with rubber bungs inserted into some of the connectors.
Only remove the rubber bung from the required connectors.

### *4.5 R-Net basic configuration*

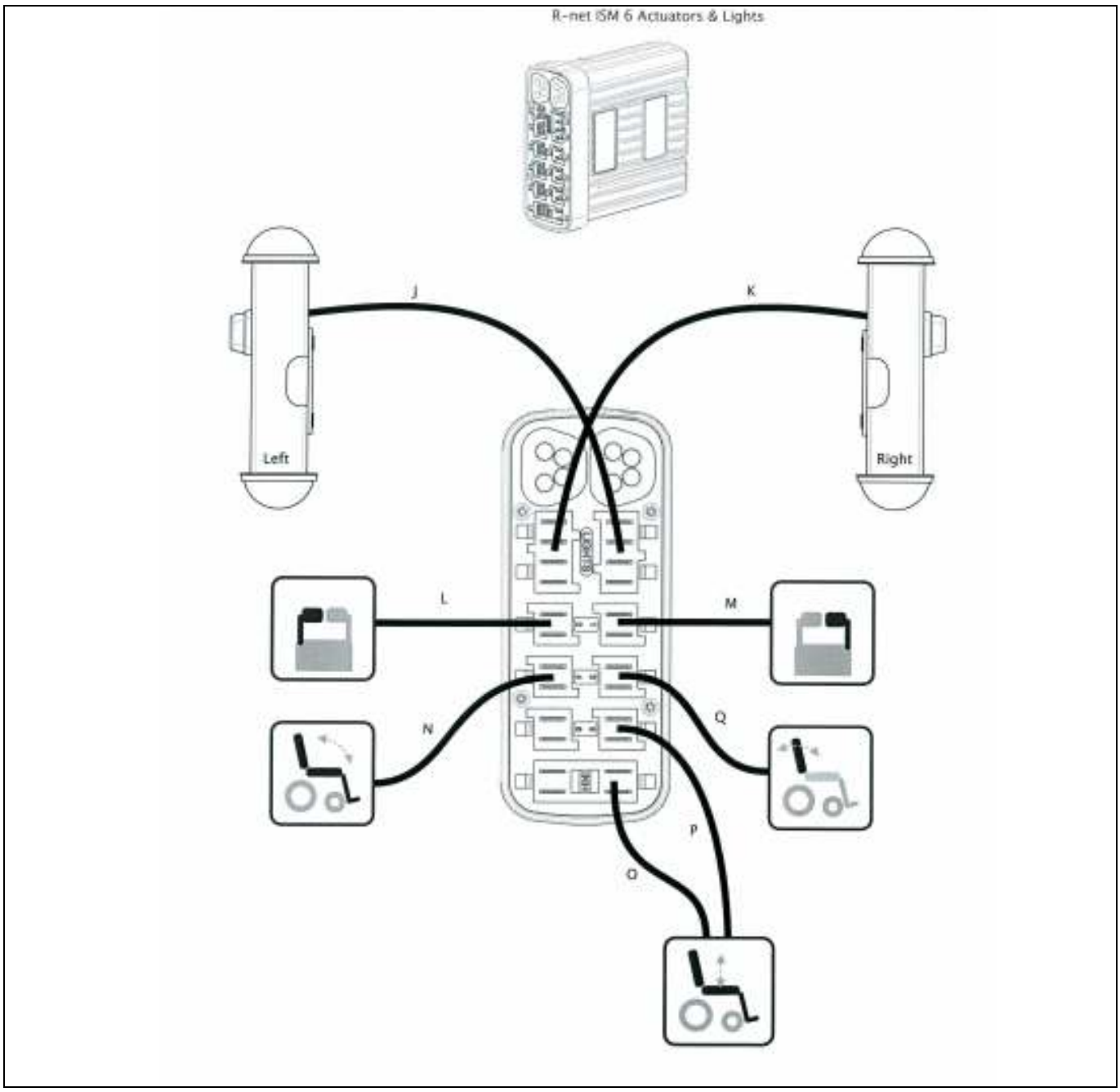


### *4.6 R-Net basic configuration ISM module without electrical lift.*




| Connection | Function |
|---|---|
| J | Lighting left |
| K | Lighting right |
| L | Leg rest left |
| M | Leg rest right |
| M | Tilt |
| Q | Backrest |
| R | Inhibit loop |

### *4.7 R-Net basic configuration ISM module with electrical lift.*




| Connection | Function |
|---|---|
| J | Lighting left |
| K | Lighting right |
| L | Leg rest left |
| M | Leg rest right |
| M | Tilt |
| O | Speed limiter inhibit |
| P | Lift |
| Q | Backrest |

# 5 Use of the parts lists

This document is meant as a reference book to be used to order parts for the wheelchair that is shown on the front cover.

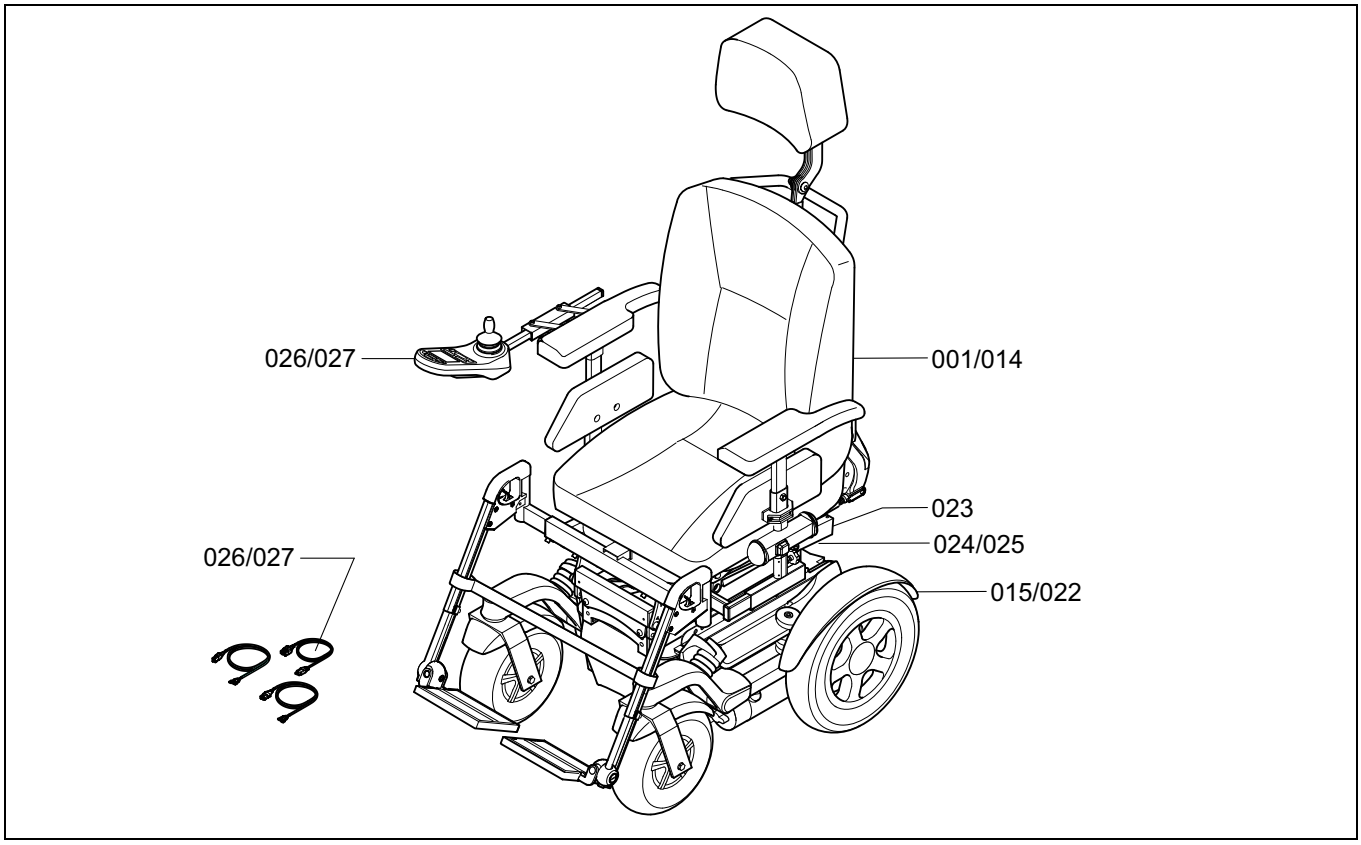
**How to order:**
When ordering parts, please specify:
- Serial number (see the identification plate).
- Group (to which the relevant part belongs).
- Article number.
- Number of parts required.
- Description (in the relevant language).
- Dimensions (if applicable).

**Remarks:**
- If a part does not have a position number, the part concerned cannot be purchased separately. The part concerned is part of the assembly shown. This assembly must be ordered as one piece; it must be replaced in its entirety.
- Boxed position numbers refer to the relevant drawing.

**Ordering address:**
Please mail or fax your orders to your supplier.

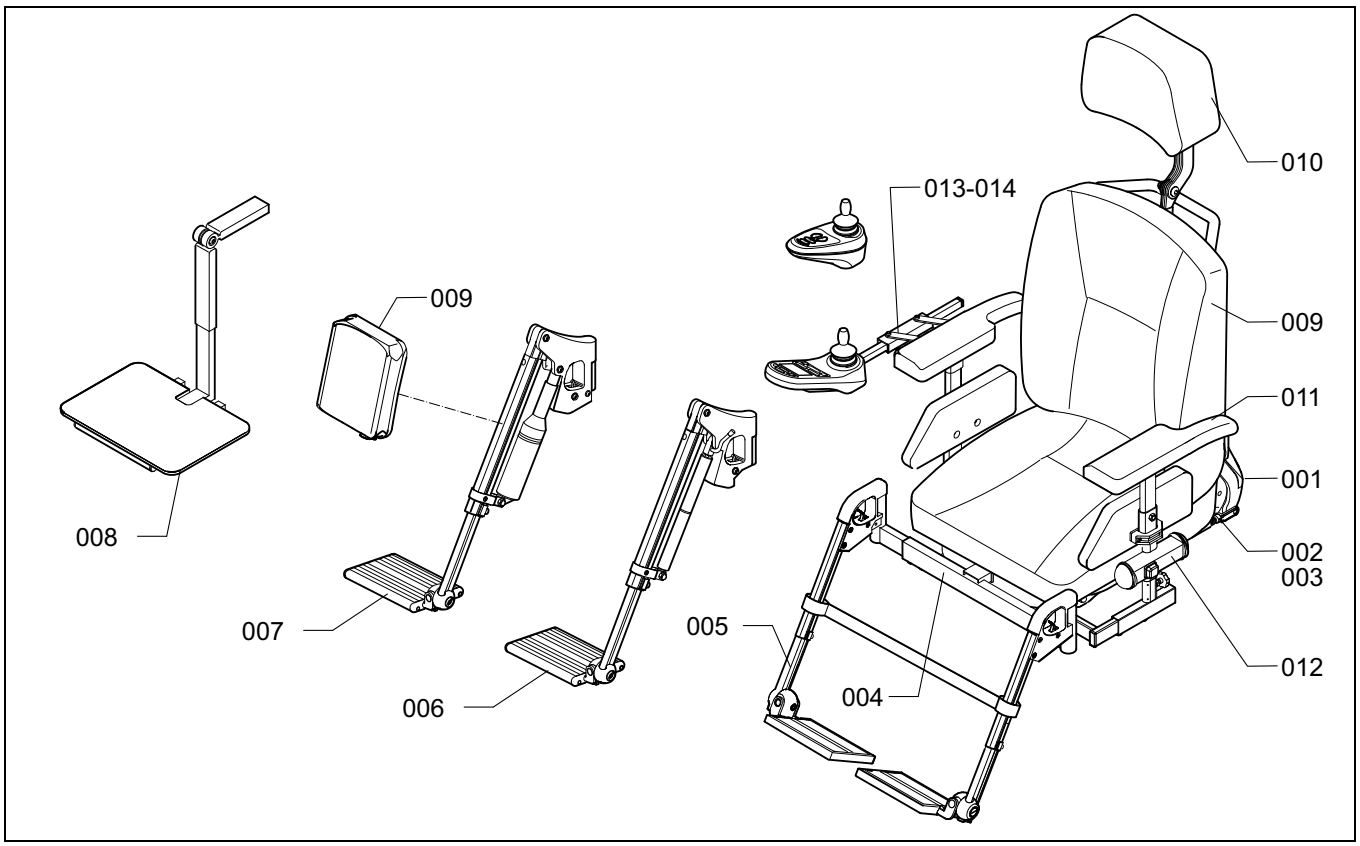
**Service technicians:**
Repairs may only be carried out by trained and authorised service technicians.
During the execution of their work, they are at all times fully responsible for the fulfillment of locally applicable safety guidelines and standards.
Temporary employees and persons in training may only carry out repair and replacement work under the supervision of an authorised service technician

- **Overview**




| Drawing | Description | Page |
|---|---|---|
| 001-014 | Sedeo | 19-36 |
| 015-022 | Carrier | 37-44 |
| 023-027 | Seat adjustments, wiring and modules | 45-52 |

### *5.1 Sedeo*




| Drawing | Description | Page |
|---|---|---|
| 001 | Sedeo seating frame | 20 |
| 002 | Electrical backrest | 21 |
| 003 | Gas spring backrest adjustment | 22 |
| 004 | Mounting bracket for leg rest | 23 |
| 005 | Standard leg rest | 24 |
| 006 | Comfort Mechanical leg rest | 25 |
| 007 | Comfort Electrical leg rest | 26 |
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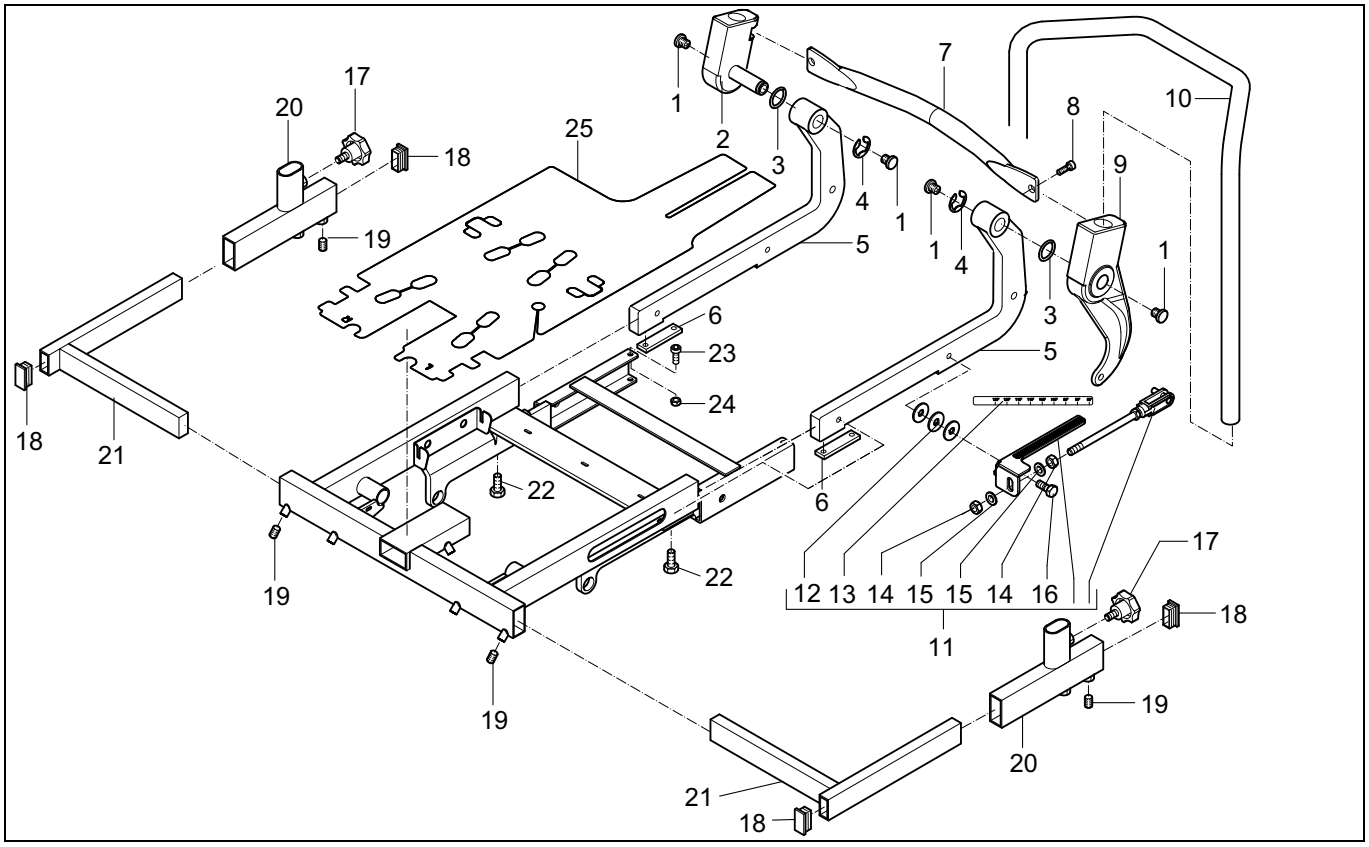
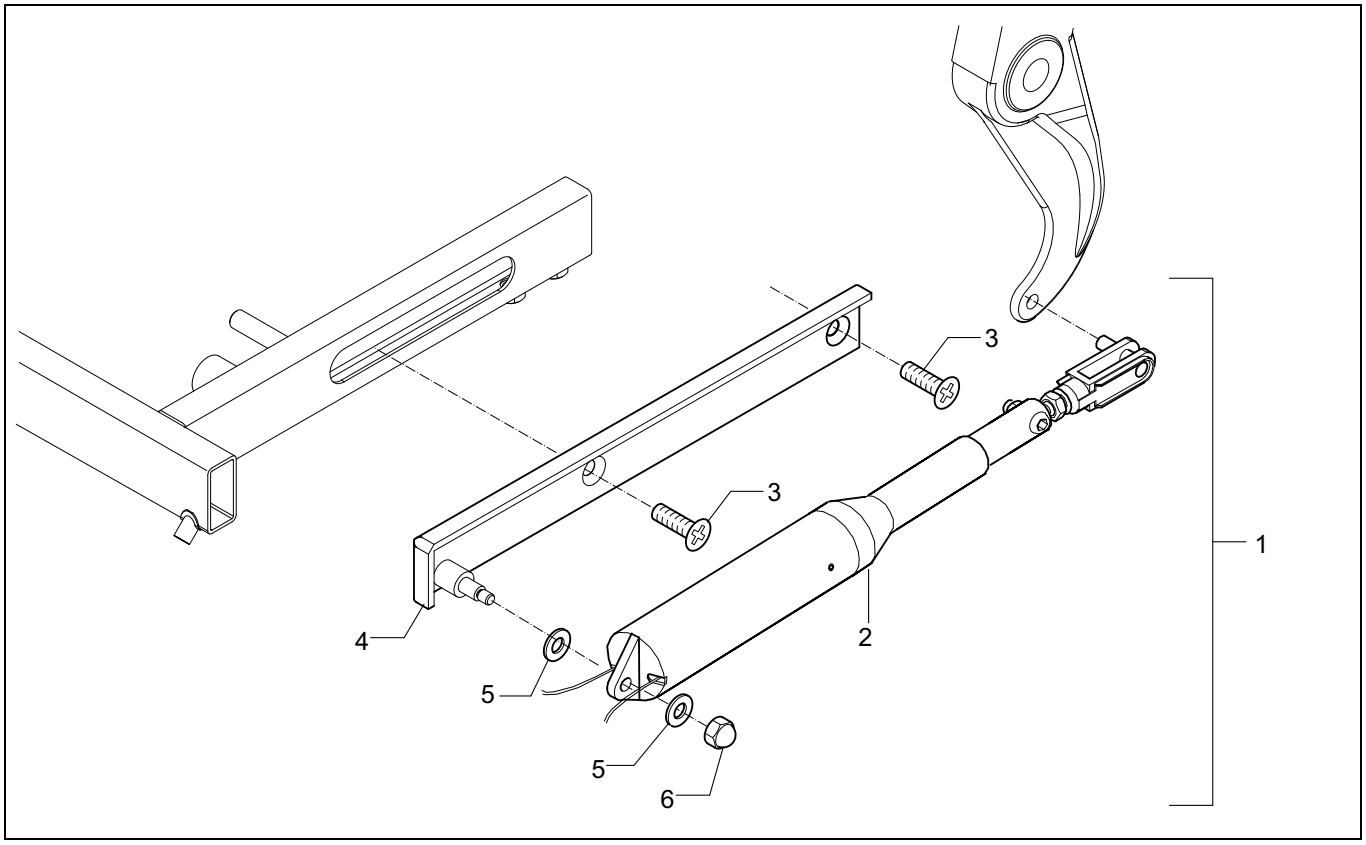
| 011 | Arm rests | 33 |
| 012 | Lighting | 34 |
| 013 | Fixed joystick bracket | 35 |
| 014 | Swing-away joystick bracket | 36 |

- 001 Sedeo seating frame



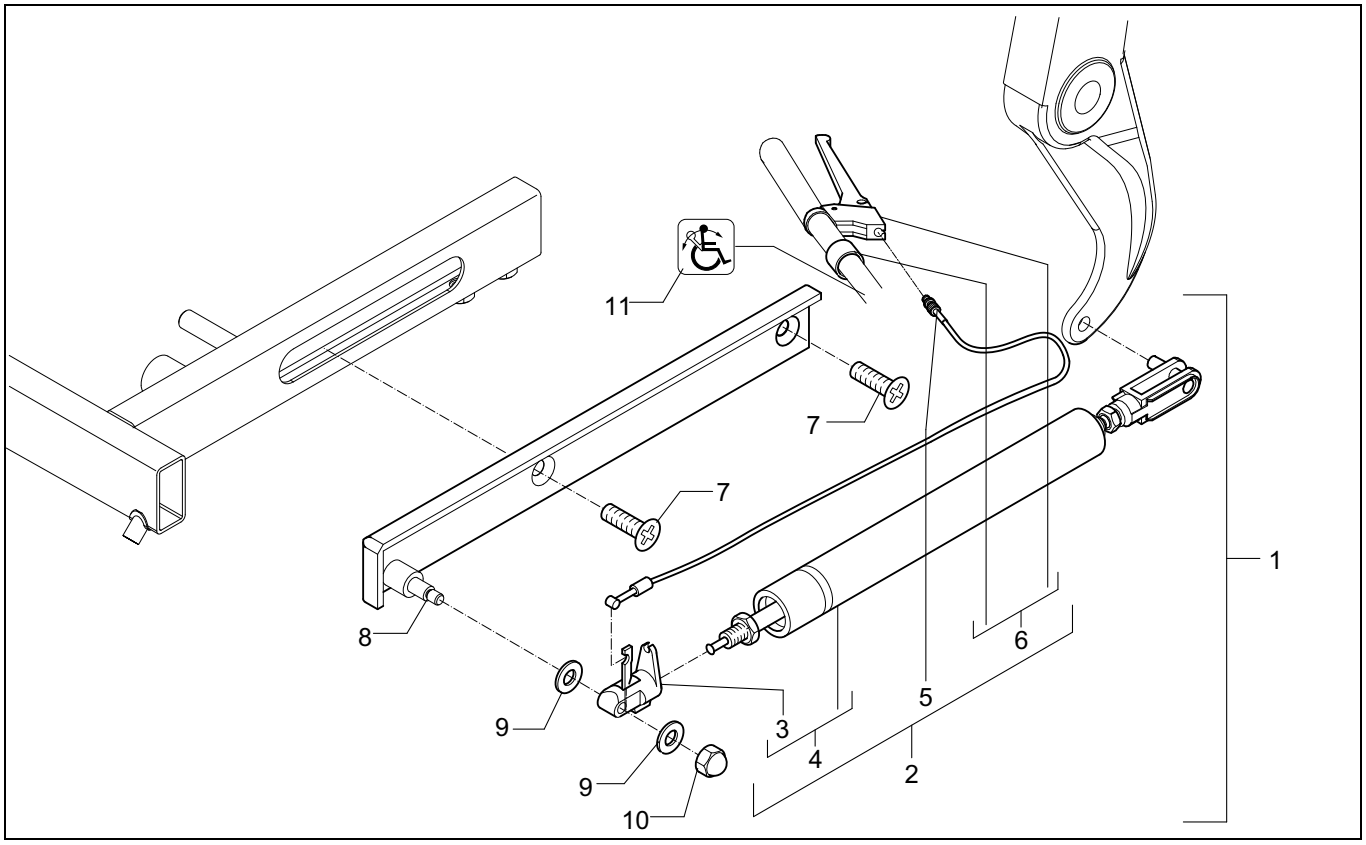

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 00000.9009 | 4 | Insert cap round 15 black | IP11164 |
| 2 | 02030.4123 | 1 | Back part 2 Sedeo short back arm | IP11165 |
| 3 | 00001.0204 | 2 | Washer | IP11166 |
| 4 | 00000.1401 | 2 | Shaft lock washer 15MM D6799 RVS | IP11167 |
| 5 | 02030.4023 | 2 | Back part 1 Sedeo | IP11163 |
| 6 | 9000673 | 2 | Pressure plate Sedeo | IP20176 |
| 7 | 02030.3423 | 1 | Back frame | IP11171 |
| 8 | 00000.3728 | 2 | Button head M8X12 ISO7380 | IP11170 |
| 9 | 02030.4223 | 1 | Back part 2 Sedeo long back arm | IP11169 |
| 10 | 9001374 | 1 | Push frame small XP | ALP10150 |
| 11 | 1008035 | 1 | Backrest adjustment assy | IP20157 |
| 12 | 00000.2103 | 3 | Washer flat 3XD M8 | IP20158 |
| 13 | 1003247 | 1 | Label back rest angle (sticker sheet) | IP20162 |
| 14 | 00000.1502 | 2 | Hex Nut M8 | IP10552 |
| 15 | 00000.2003 | 2 | Washer flat M8 | IP11453 |
| 16 | 00000.4135 | 1 | Hex. Bolt M8x25 | IP20161 |
| 17 | 00000.4502 | 2 | Star knob outs M8X15 black | ALP10151 |
| 18 | 00000.9203 | 4 | Insert cap 35x15 black | ALP10152 |
| 19 | 00000.3519 | 8 | Adjusting screw cone M8X10 D914 | IP11154 |
| 20 | 9002122 | 2 | Arm support holder > 01-06-2008 | ALP10153 |
| 21 | 118.00172.023 | 2 | Insert holder | ALP10154 |
| 22 | 00000.4322 | 4 | Hexagon bolt M8X12 VZ | ALP10155 |
| 23 | 00000.3719 | 2 | Buttonhead M5x10 | ALP10156 |
| 24 | 00000.1700 | 2 | Locknut M5 | ALP10157 |
| 25 | 9002361 | 1 | Cable sheet | ALP10158 |

- 002 Electrical backrest



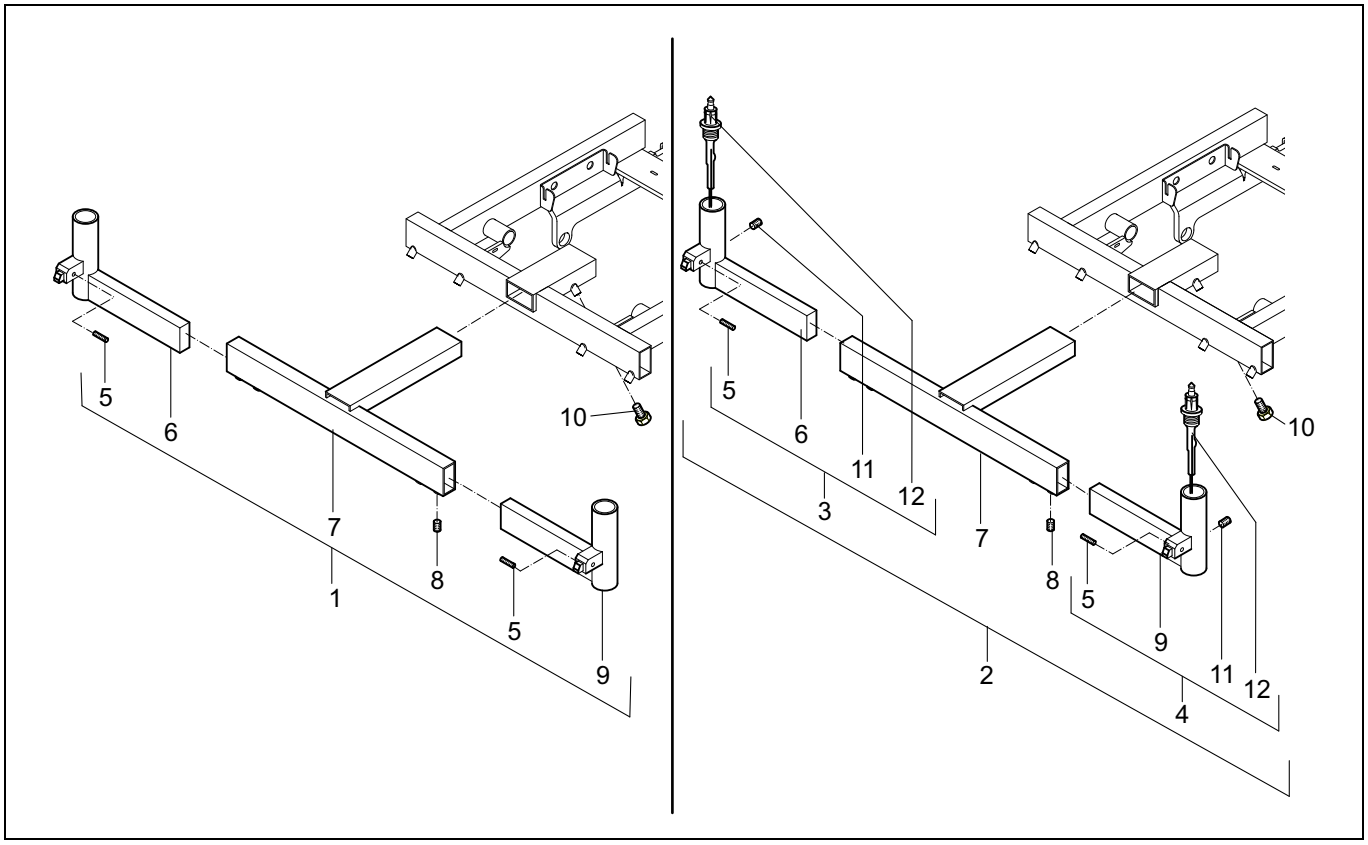

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 1008078 | 1 | Electrical backrest | ALP10250 |
| 2 | 150.00141.000 | 1 | Actuator for backrest | ALP10251 |
| 3 | 00001.0914 | 2 | Screw M8x16 D7991 | IP11153 |
| 4 | 02030.3523 | 1 | Bracket backrest adjustment | ALP10252 |
| 5 | 00000.2250 | 2 | Spring washer fluted M8 D137B VZ | ALP10253 |
| 6 | 00000.1801 | 1 | Cap locknut M6 D986/VZ | IP11152 |

- 003 Gas spring backrest adjustment



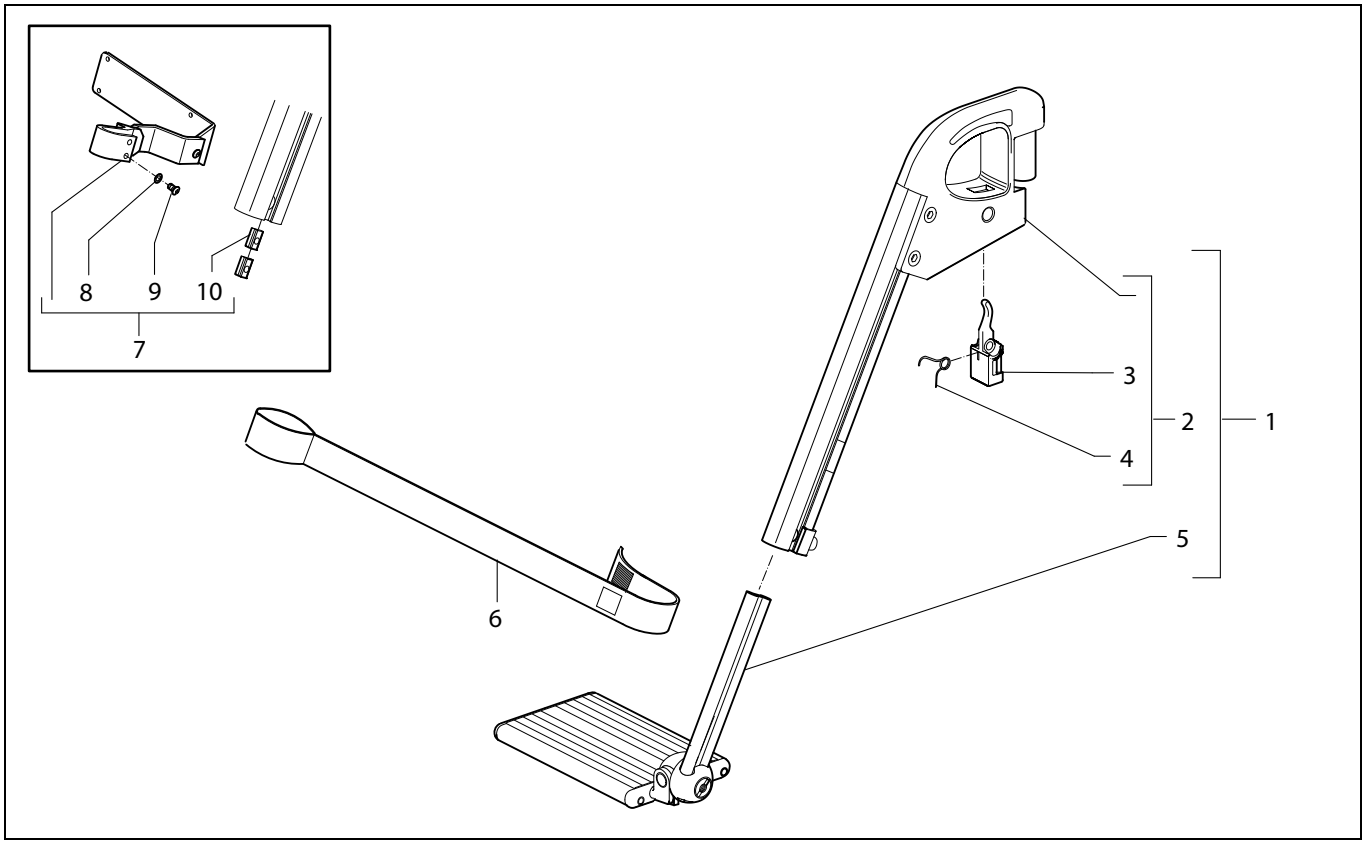

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 1003440 | 1 | Gasspring backrest adjustment complete | IP21262 |
| 2 | 02152.9200 | 1 | Gasspring backrest adj. | IP11350 |
| 3 | 02010.6910 | 1 | Gasspring unlock mechanism | IP11352 |
| 4 | 1002813 | 1 | Gasspring bloc-o-lift 200N | IP21254 |
| 5 | 1008057 | 1 | Cable | IP21055 |
| 6 | 1007008 | 1 | Handle | IP21056 |
| 7 | 00001.0914 | 2 | Screw M8X16 | IP11153 |
| 8 | 02030.3523 | 1 | Bracket backrest adjustment | IP11150 |
| 9 | 00000.2250 | 2 | Spring washer fluted M8 | IP11151 |
| 10 | 00000.1801 | 1 | Cap lock nut M6 | IP11152 |
| 11 | 00001.1405 | 1 | Label backrest adjustment | IP21261 |

- 004 Mounting bracket for leg rest



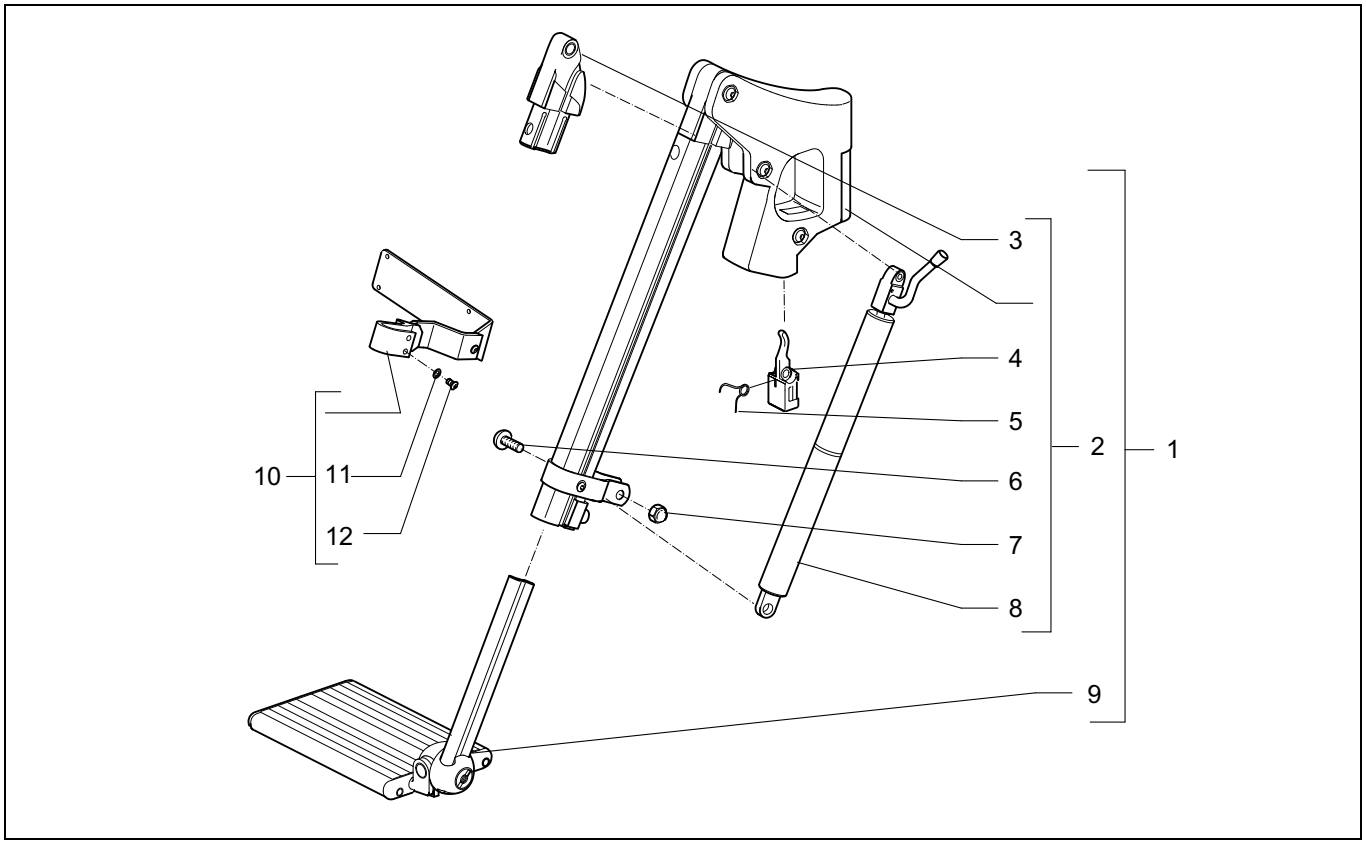

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 01245.9623 | 1 | Mounting bracket for standard and comfort leg rest | ALP10450 |
| 4 | 05990.0013 | 1 | Insert holder left-hand | ALP10453 |
| 5 | 00000.3590 | 2 | Adjusting screw M6X16 | IP11757 |
| 6 | 01502.1323 | 1 | Insert tube right | IP11758 |
| 7 | 05245.0723 | 1 | Middle part leg rest bracket | IP11756 |
| 8 | 00000.3501 | 4 | Adjusting screw BZK M8X10 D913/VZ | IP1175 |
| 9 | 01502.1223 | 1 | Insert tube left | IP11754 |
| 10 | 00000.4311 | 1 | Hex. Bolt M8x20 | ALP10454 |
| 11 | 00000.3542 | 2 | Adjusting screw + crater M6X8 D916 | IP11755 |
| 12 | 055.00064.000 | 2 | Leg rest harness | ALP10456 |
| 2 | 05245.9723 | 1 | Mounting Bracket for Electrical Leg Rests | ALP10451 |
| 3 | 05990.0012 | 1 | Insert Tube Right for Electrical Leg Rest | ALP10452 |

- 005 Standard leg rest



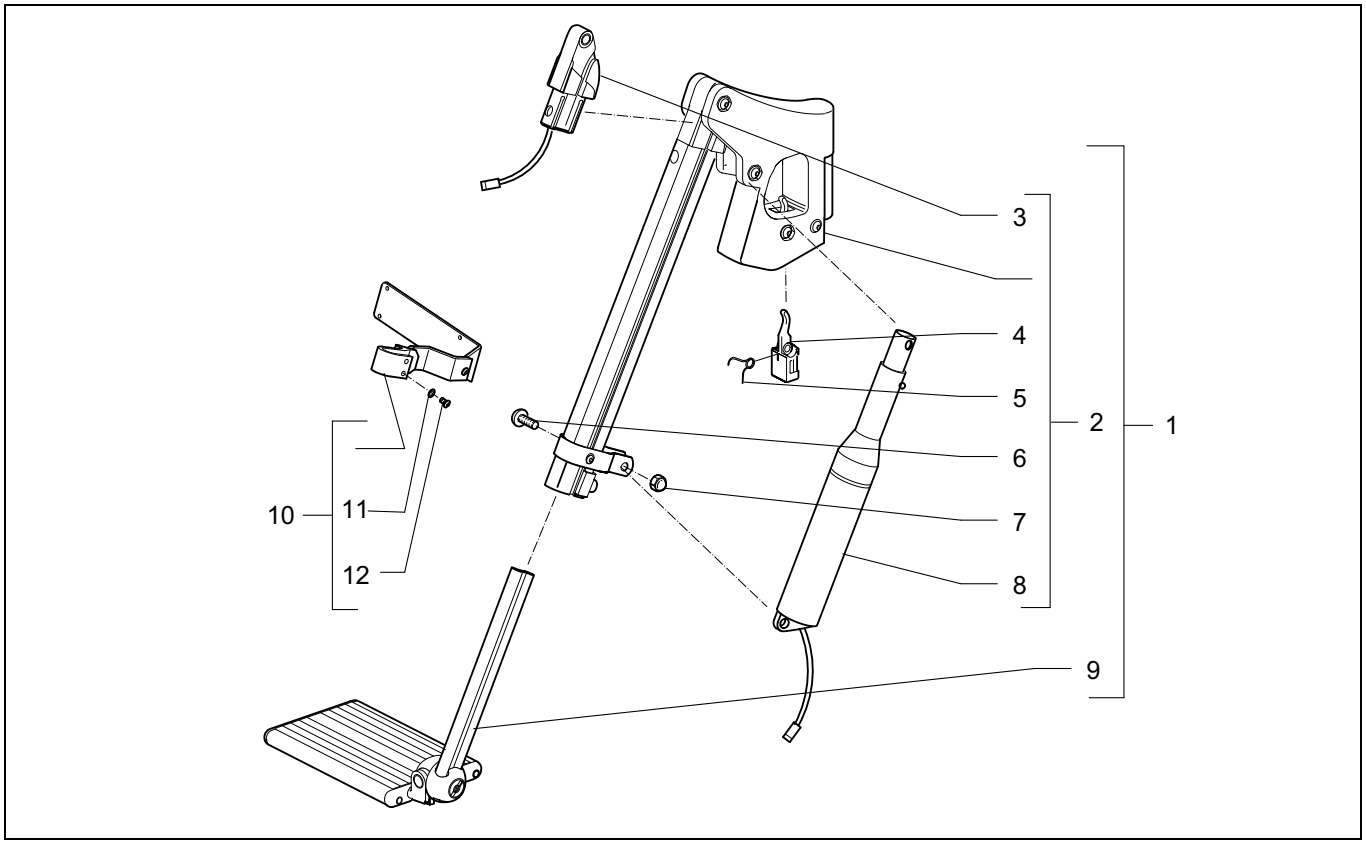

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | - 01500.9119 | 1 | Standard leg rest left<br>**See page 27** | IP20650 |
| | - 01500.9019 | 1 | Standard leg rest right<br>**See page 27** | IP20651 |
| 2 | 1002515 | 1 | Standard leg rest upper part left | IP20673 |
| | 1002514 | 1 | Standard leg rest upper part right | IP20674 |
| 3 | 01500.1112 | 2 | Leg rest release lever | IP11952 |
| 4 | 01500.2212 | 2 | Leg rest release spring | IP11951 |
| 5 | 140.00131.000 | 1 | Footplate left<br>**See page 27** | IP20652 |
| | 140.00121.000 | 1 | Footplate right<br>**See page 27** | IP20653 |
| 6 | 01263.9000 | 1 | Calf strap | IP11961 |
| 7 | 1004189 | 2 | Calf plate hinge standard | IP20680 |
| | 1004188 | 2 | Calf plate hinge small | IP20681 |
| 8 | 00000.2601 | 4 | Toothed spring washer | IP12068 |
| 9 | 00000.3725 | 4 | Button head M6X10 | IP12263 |
| 10 | 01500.2110 | 4 | Leg Rest Clamping Strip Short | IP12065 |

- 006 Comfort mechanical leg rest




| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 01500.9319 | | Comfort leg rest left manual elevating<br>**See page 27** | IP20750 |
| | 01500.9219 | | Comfort leg rest right<br>**See page 27** | IP20751 |
| 2 | 1002517 | 1 | Comfort leg rest upper part left | IP20773 |
| | 1002516 | 1 | Comfort leg rest upper part right | IP20774 |
| 3 | 01500.4612 | 2 | Hinge comfort leg rest | IP12058 |
| 4 | 01500.1112 | 2 | Leg rest release lever | IP11952 |
| 5 | 01500.2212 | 2 | Leg rest release spring | IP11951 |
| 6 | 00000.3706 | 2 | Button head M8X25 | IP12060 |
| 7 | 00000.1802 | 2 | Cap lock nut M8 | IP12059 |
| 8 | 1008076 | 1 | Gasspring with gasspring control left | IP20780 |
| | 1008077 | 1 | Gasspring with gasspring control right | IP20781 |
| 9 | 140.00131.000 | | Footplate left<br>**See page 27** | IP20652 |
| | 140.00121.000 | | Footplate right<br>**See page 27** | IP20653 |
| 10 | 906.00000.031 | 2 | Calf plate hinge standard | IP12259 |
| | 906.00311.000 | 2 | Calf plate hinge small | IP20785 |
| 11 | 00000.2601 | 4 | Toothed spring washer M6 | IP12068 |
| 12 | 00000.3725 | 4 | Button head M6X10 | IP12263 |
| N/S | | 2 | Swingaway std Heavy duty legrest w/calf straps w/heel loop - pair | ALP12066 |

- 007 Comfort electrical leg rest



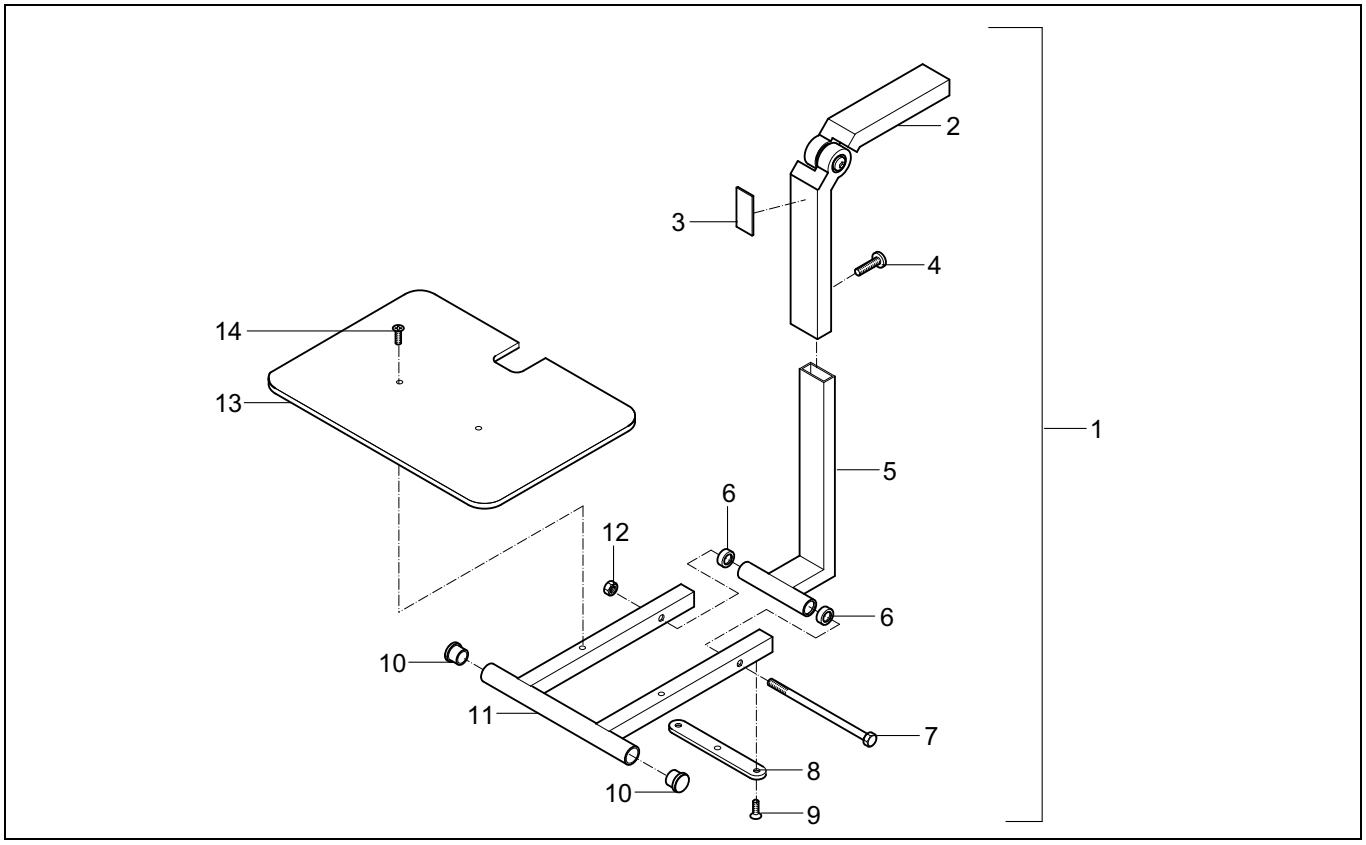

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| | | | Electrical comfort leg rest left | |
| 1 | - | 1 | **See page 27** | ALP10790 |
| | - | 1 | Electrical comfort leg rest right<br>**See page 27** | ALP10791 |
| 2 | 1003029 | 1 | Electrical comfort leg rest upper part left | ALP10792 |
| | 1003028 | 1 | Electrical comfort leg rest upper part right | ALP10793 |
| 3 | 01500.4612 | 2 | Hinge comfort leg rest | IP12058 |
| 4 | 01500.1112 | 2 | Leg rest release lever | IP11952 |
| 5 | 01500.2212 | 2 | Leg rest release spring | IP11951 |
| 6 | 00000.3706 | 2 | Button head M8X25 | IP12060 |
| 7 | 00000.1802 | 2 | Cap lock nut M8 | IP12059 |
| 8 | 9001232 | 2 | Leg rest actuator inc. kabel | ALP10794 |
| 9 | - | 1 | Footplate left<br>**See page 27** | IP20652 - |
| | - | 1 | Footplate right<br>**See page 27** | IP20653 - |
| 10 | 906.00000.031 | 2 | Calf plate hinge standard | IP12259 |
| | 906.00311.000 | 2 | Calf plate hinge small | IP20785 |
| 11 | 00000.2601 | 2 | Toothed spring washer M6 | IP12068 |
| 12 | 00000.3725 | 2 | Button head M6X10 | IP12263 |
| 13 | 140.00031.000 | 1 | Electrical Comfort Leg Rest incl. Bracket and Calfrests | ALP10795 |

## SEDEO LEGRESTS AND FOOTPLATES — SPARE PARTS

| | LEGRESTS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TYPE | SIZE | RIGHT | € | LEFT | € | CALF PLATE AND LEGRESTBRACKET, SET | € | CALFSTRAP AND LEGRESTBRACKET, SET | € |
| STANDARD | 13 | 1003561 | 161 | 1003560 | 161 | 1003592 | 675 | 1003579 | 469 |
| | 15 | 1003563 | 161 | 1003562 | 161 | 1003593 | 675 | 1003580 | 469 |
| | 17 | 01500.9019 | 161 | 01500.9119 | 161 | 140.00071.000 | 675 | 140.00011.000 | 469 |
| | 19 | 1003565 | 161 | 1003564 | 161 | 1003594 | 675 | 1003581 | 469 |
| | 21 | 1003567 | 161 | 1003566 | 161 | 1003595 | 675 | 1003582 | 469 |
| | 23 | 1003569 | 161 | 1003568 | 161 | 1003596 | 675 | 1003583 | 469 |
| | 25 | 1003571 | 161 | 1003570 | 161 | 1003597 | 675 | 1003584 | 469 |
| COMFORT | 13 | 140.00341.000 | 353 | 140.00311.000 | 353 | 1003607 | 979 | | |
| | 15 | 140.00351.000 | 353 | 140.00321.000 | 353 | 1003608 | 979 | | |
| | 17 | 01500.9219 | 353 | 01500.9319 | 353 | 140.00021.000 | 979 | | |
| | 19 | 140.00361.000 | 353 | 140.00331.000 | 353 | 1003609 | 979 | | |
| | 21 | 1003601 | 353 | 1003598 | 353 | 1003610 | 979 | | |
| | 23 | 1003602 | 353 | 1003599 | 353 | 1003611 | 979 | | |
| | 25 | 1003603 | 353 | 1003600 | 353 | 1003612 | 979 | | |
| ELECTRICAL | 13 | 140.00461.000 | 1133 | 140.00451.000 | 1133 | 140.00471.000 | 2595 | | |
| | 15 | 1003618 | 1133 | 1003613 | 1133 | 1003623 | 2595 | | |
| | 17 | 01502.9013 | 1133 | 01502.9113 | 1133 | 140.00031.000 | 2595 | | |
| | 19 | 1003619 | 1133 | 1003614 | 1133 | 1003624 | 2595 | | |
| | 21 | 1003620 | 1133 | 1003615 | 1133 | 1003625 | 2595 | | |
| | 23 | 1003621 | 1133 | 1003616 | 1133 | 1003626 | 2595 | | |
| | 25 | 1003622 | 1133 | 1003617 | 1133 | 1003627 | 2595 | | |

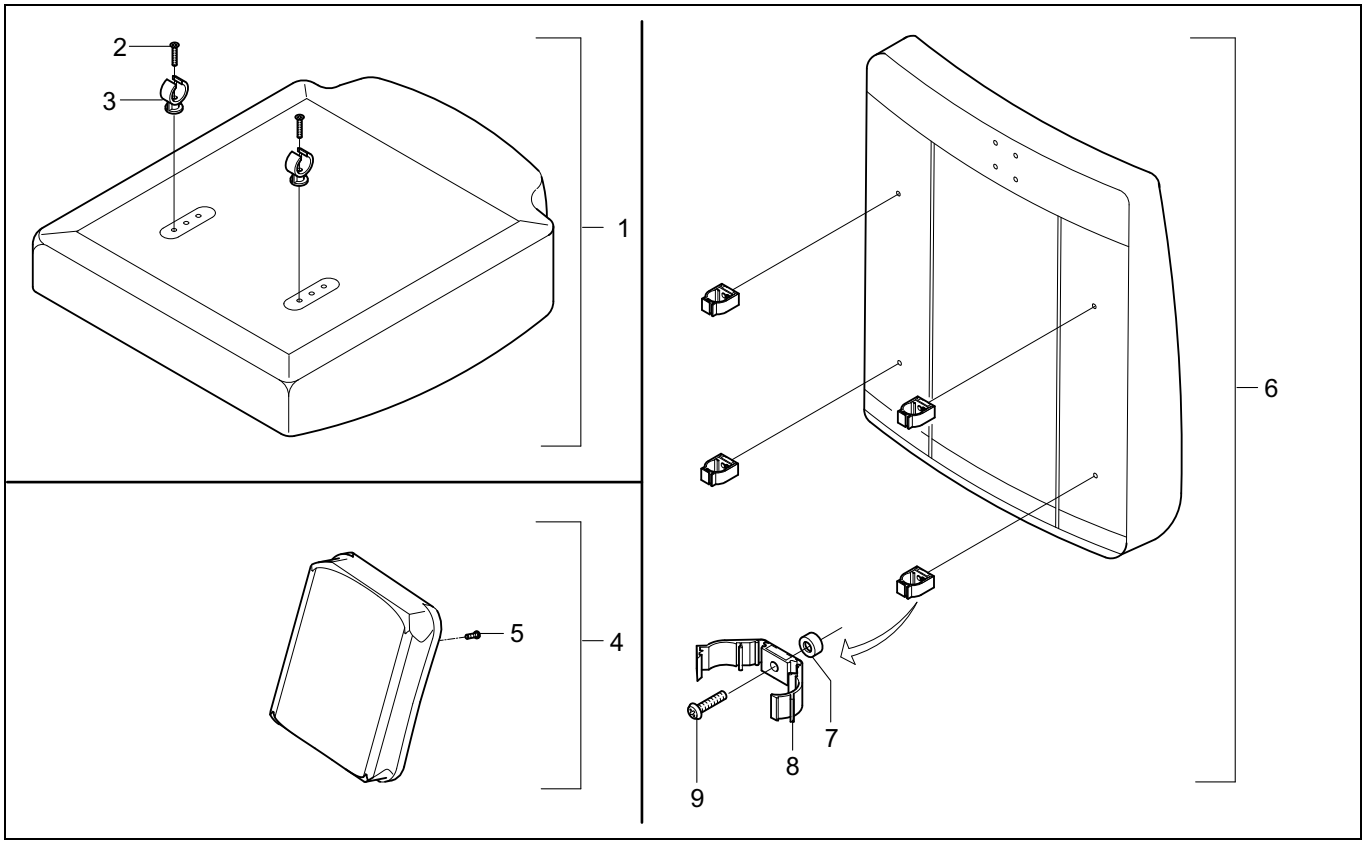
| FOOTPLATES | | | | |
|---|---|---|---|---|
| SIZE | RIGHT | € | LEFT | € |
| 13 | 140.00161.000 | 99 | 140.00191.000 | 99 |
| 15 | 140.00171.000 | 99 | 140.00201.000 | 99 |
| 17 | 140.00121.000 | 99 | 140.00131.000 | 99 |
| 19 | 140.00181.000 | 99 | 140.00211.000 | 99 |
| 21 | 1003220 | 99 | 1003219 | 99 |
| 23 | 1003222 | 99 | 1003221 | 99 |
| 25 | 1003224 | 99 | 1003223 | 99 |

- 008 Central leg rest




| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 140.00061.000 | 1 | Central leg rest | IP20550 |
| 2 | 9001719 | 1 | Upper part hinge | IP20551 |
| 3 | 00001.1324 | 1 | Label tilting hazard | IP11963 |
| 4 | 00000.3706 | 1 | Button head M8X25 | IP12060 |
| 5 | 20050.1311 | 1 | Lower tube | IP11662 |
| 6 | 00000.5002 | 2 | Bearing bush nylon 8x11x13 | IP11659 |
| 7 | 00000.4100 | 1 | Hex bolt M8X150 | IP11664 |
| 8 | 01050.2011 | 1 | Strip | IP11665 |
| 9 | 00000.3614 | 2 | Screw M6X20 | IP11671 |
| 10 | 00000.9002 | 2 | Insert cap round 22 black | IP11667 |
| 11 | 01050.1411 | 1 | U-pipe | IP11668 |
| 12 | 00000.1702 | 1 | Lock nut M8 | IP11669 |
| 13 | 20050.2480 | 1 | Footplate | IP11670 |
| 14 | 00000.3614 | 2 | Screw M6X20 | IP11671 |

- 009 Upholstery




| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | - | 1 | Sedeo seat<br>**See page 30** | - |
| 2 | 00000.3617 | 2 | Screw M5X30 | IP12250 |
| 3 | 00000.6501 | 2 | Pipe clamp DIA 22 black | IP12251 |
| 4 | 220.00121.505 | 1 | Calf plate standard | IP12260 |
| | 220.00141.505 | 1 | Calf plate small | IP20875 |
| 5 | 00000.3206 | 4 | Screw M5X16 | IP12152 |
| 6 | - | 1 | Sedeo backrest<br>**See page 31** | - |
| 7 | 00000.5721 | 4 | Washer flat M6 | IP20878 |
| 8 | 00000.6504 | 4 | Pipe clamp back closed type | IP12257 |
| 9 | 00000.3207 | 4 | Screw M5X20 | IP12156 |
| 11 | 201.47821.517 | 1 | Sedeo Seat Cushion, Balance 46x50 (18"W) | ALP10950 |

## SEDEO SEAT CUSHIONS — SPARE PARTS

| W X D | PROFILED WITH GREY MIDDLE BAR | € | MEMORY FOAM | € | SUPPORT | € | BALANCE | € |
|---|---|---|---|---|---|---|---|---|
| **42x50** | 1002950 | 160 | 200.40481.517 | 342 | 205.42791.517 | 382 | 201.47741.517 | 434 |
| **46x50** | 1002951 | 160 | 200.40561.517 | 342 | 205.42871.517 | 382 | 201.47821.517 | 434 |
| **50x50** | 1002952 | 160 | 200.40641.517 | 342 | 205.42951.517 | 382 | 201.47901.517 | 434 |
| 42x54 | 1002953 | 267 | 1001997 | 449 | 1002006 | 489 | 1002024 | 541 |
| 42x58 | 1002954 | 267 | 1001998 | 449 | 1002007 | 489 | 1002025 | 541 |
| 46x54 | 1002955 | 267 | 1001999 | 449 | 1002008 | 489 | 1002026 | 541 |
| 46x58 | 1002956 | 267 | 1002000 | 449 | 1002009 | 489 | 1002027 | 541 |
| 50x54 | 1002957 | 267 | 1002001 | 449 | 1002010 | 489 | 1002028 | 541 |
| 50x58 | 1002958 | 267 | 1002002 | 449 | 1002011 | 489 | 1002029 | 541 |
| 54x50 | 1002959 | 267 | 1002003 | 449 | 1002012 | 489 | 1002030 | 541 |
| 54x54 | 1002960 | 267 | 1002004 | 449 | 1002013 | 489 | 1002031 | 541 |
| 54x58 | 1002961 | 267 | 1002005 | 449 | 1002014 | 489 | 1002032 | 541 |

| W X D | FLUID | € | AIR | € |
|---|---|---|---|---|
| **42x50** | 1003360 | 472 | 1003363 | 590 |
| **46x50** | 1003361 | 472 | 1003364 | 590 |
| **50x50** | 1003362 | 472 | 1003365 | 590 |

| W X D | BOARD | € | BOARD WITH REAR PAN | € | PAN | € |
|---|---|---|---|---|---|---|
| **42x50** | 1002042 | 225 | 1002054 | 225 | 202.41141.505 | 225 |
| **46x50** | 1002045 | 225 | 1002057 | 225 | 202.41221.505 | 225 |
| **50x50** | 1002048 | 225 | 1002060 | 225 | 202.41301.505 | 225 |
| 42x54 | 1002043 | 332 | 1002055 | 332 | 1002033 | 332 |
| 42x58 | 1002044 | 332 | 1002056 | 332 | 1002034 | 332 |
| 46x54 | 1002046 | 332 | 1002058 | 332 | 1002035 | 332 |
| 46x58 | 1002047 | 332 | 1002059 | 332 | 1002036 | 332 |
| 50x54 | 1002049 | 332 | 1002061 | 332 | 1002037 | 332 |
| 50x58 | 1002050 | 332 | 1002062 | 332 | 1002038 | 332 |
| 54x50 | 1002051 | 332 | 1002063 | 332 | 1002039 | 332 |
| 54x54 | 1002052 | 332 | 1002064 | 332 | 1002040 | 332 |
| 54x58 | 1002053 | 332 | 1002065 | 332 | 1002041 | 332 |

## ADAPTATIONS special conditions will apply on all adaptations

| | |
|---|---|
| Profiled with grey middle bar seat cushion, other upholstery size and/or material | 267 |
| Memory foam seat cushion, other upholstery size and/or material | 449 |
| Support seat cushion, other upholstery size and/or material | 489 |
| Balance seat cushion, other upholstery size and/or material | 541 |
| Fluid seat cushion, other upholstery size and/or material | 579 |
| Air seat cushion, other upholstery size and/or material | 697 |
| Board, other upholstery size and/or material | 332 |
| Board with rear pan, other upholstery size and/or material | 332 |
| Pan, other upholstery size and/or material | 332 |

## SEDEO BACKRESTS — SPARE PARTS

| W X D | PROFILED WITH GREY MIDDLE BAR | € | WITH LUMBAR SUPPORT | € | EXTRA SOFT | € | WEBBED | € |
|---|---|---|---|---|---|---|---|---|
| **42x52** | 1002974 | 175 | 215.20031.505 | 377 | 207.20211.520 | 362 | 207.20751.520 | 399 |
| **46x52** | 1002975 | 175 | 215.20051.505 | 377 | 207.20231.520 | 362 | 207.20771.520 | 399 |
| **50x52** | 1002976 | 175 | 215.20071.505 | 377 | 207.20251.520 | 362 | 207.20791.520 | 399 |
| 42x56 | 1002977 | 282 | 1002161 | 484 | 1002179 | 469 | 1002152 | 506 |
| 42x60 | 1002978 | 282 | 1002162 | 484 | 1002180 | 469 | 1002153 | 506 |
| 46x56 | 1002979 | 282 | 1002163 | 484 | 1002181 | 469 | 1002154 | 506 |
| 46x60 | 1002980 | 282 | 1002164 | 484 | 1002182 | 469 | 1002155 | 506 |
| 50x56 | 1002981 | 282 | 1002165 | 484 | 1002183 | 469 | 1002156 | 506 |
| 50x60 | 1002982 | 282 | 1002166 | 484 | 1002184 | 469 | 1002157 | 506 |
| 54x52 | 1002983 | 282 | 1002167 | 484 | 1002185 | 469 | 1002158 | 506 |
| 54x56 | 1002984 | 282 | 1002168 | 484 | 1002186 | 469 | 1002159 | 506 |
| 54x60 | 1002985 | 282 | 1002169 | 484 | 1002187 | 469 | 1002160 | 506 |

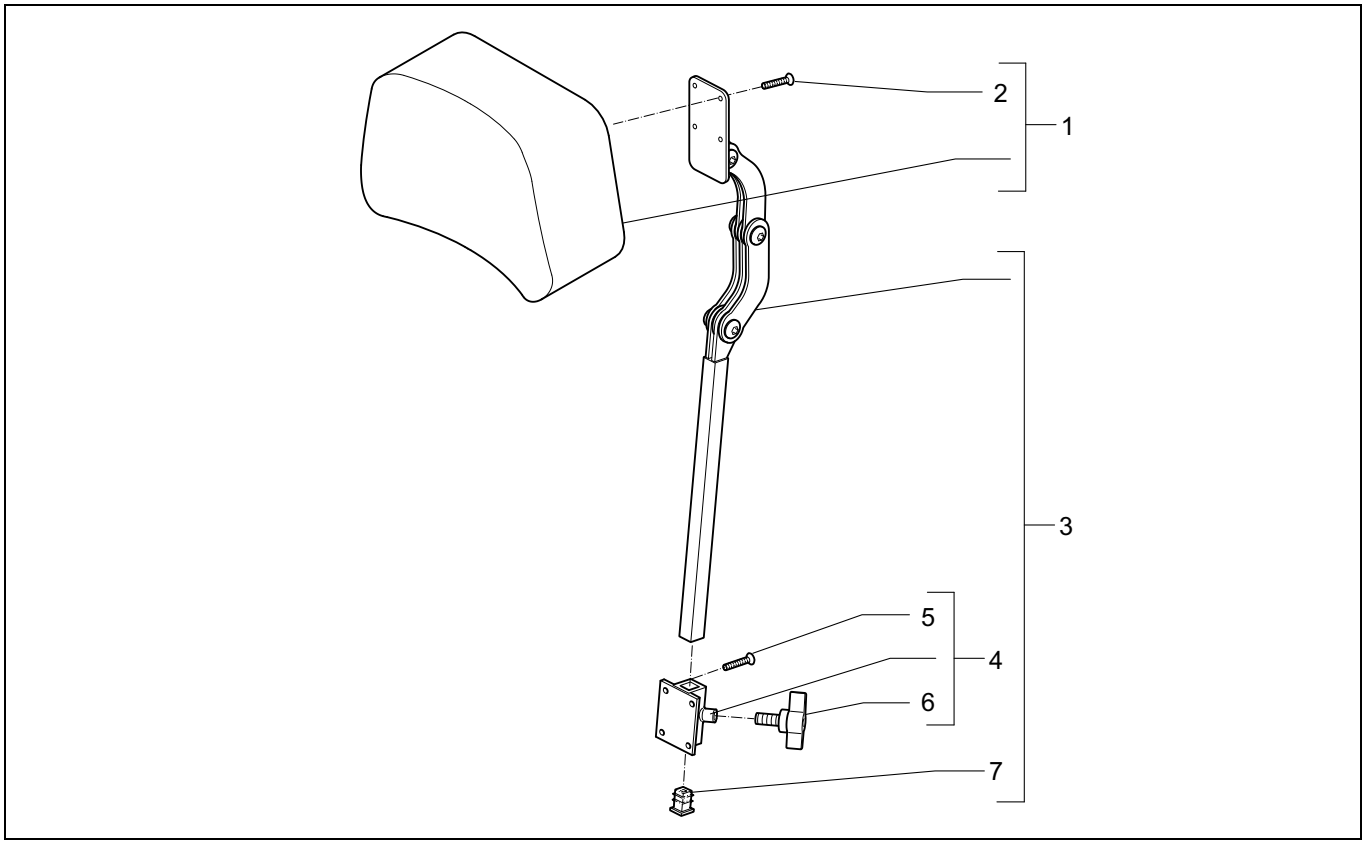
| W X D | SUPPORT | € | WITH STRAPS | € | WITH STRAPS, ACTIVE | € |
|---|---|---|---|---|---|---|
| **42x52** | 209.20211.505 | 404 | 214.20751.520 | 490 | 214.23031.520 | 513 |
| **46x52** | 209.20231.505 | 404 | 214.20771.520 | 490 | 214.23041.520 | 513 |
| **50x52** | 209.20251.505 | 404 | 214.20791.520 | 490 | 214.23051.520 | 513 |
| 42x56 | 1002170 | 511 | 1002188 | 597 | 1002197 | 620 |
| 42x60 | 1002171 | 511 | 1002189 | 597 | 1002198 | 620 |
| 46x56 | 1002172 | 511 | 1002190 | 597 | 1002199 | 620 |
| 46x60 | 1002173 | 511 | 1002191 | 597 | 1002200 | 620 |
| 50x56 | 1002174 | 511 | 1002192 | 597 | 1002201 | 620 |
| 50x60 | 1002175 | 511 | 1002193 | 597 | 1002202 | 620 |
| 54x52 | 1002176 | 511 | 1002194 | 597 | 1002203 | 620 |
| 54x56 | 1002177 | 511 | 1002195 | 597 | 1002204 | 620 |
| 54x60 | 1002178 | 511 | 1002196 | 597 | 1002205 | 620 |

| W X D | WITH STRAPS, ACTIVE FLEXIBLE | € |
|---|---|---|
| **40x50** | 1008559 | 506 |
| **45x50** | 1008560 | 506 |
| **50x50** | 1008561 | 506 |

## ADAPTATIONS special conditions will apply on all adaptations

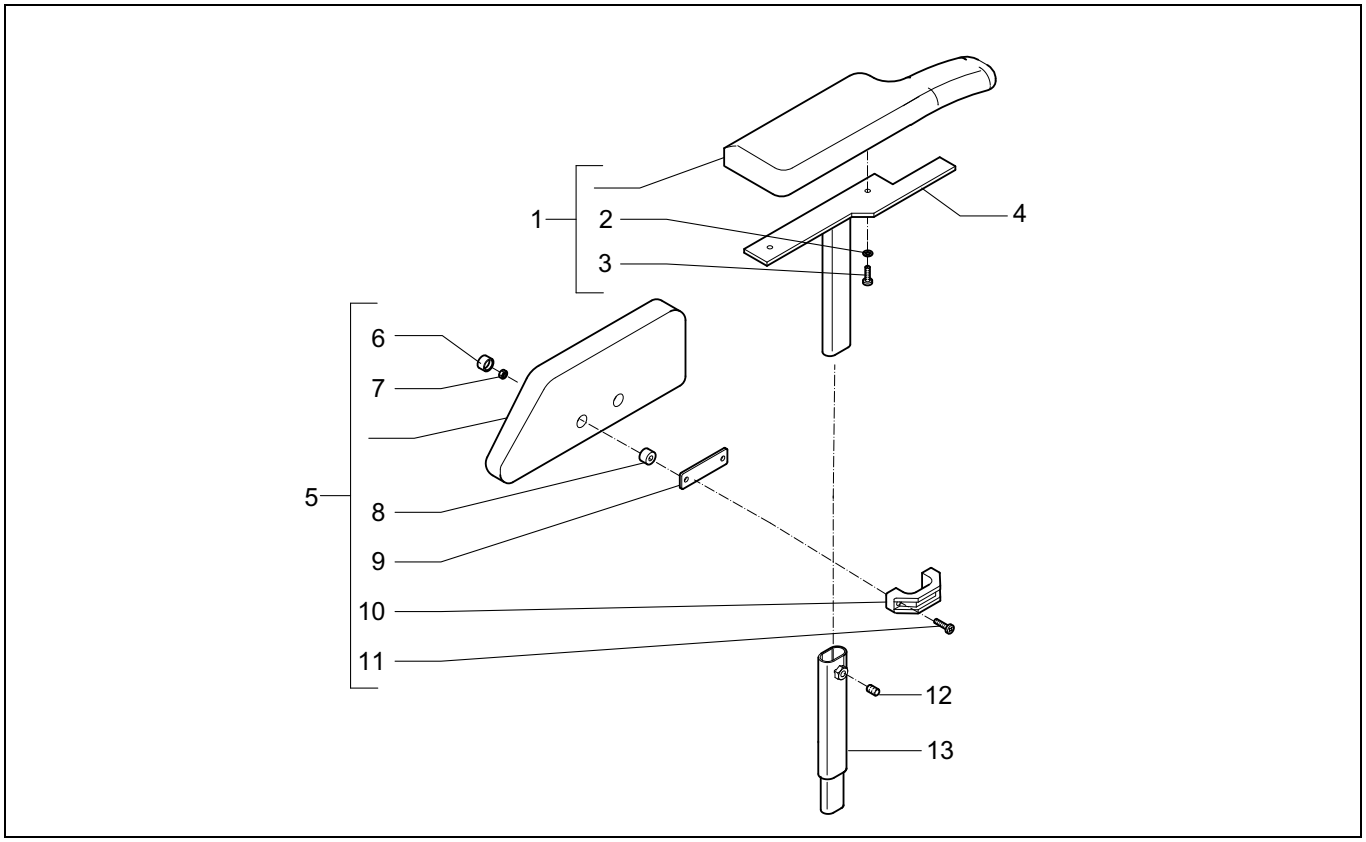
| | |
|---|---|
| Profiled with grey middle bar backrest, other upholstery size and/or material | 282 |
| Backrest with lumbar support, other upholstery size and/or material | 484 |
| Extra soft backrest, other upholstery size and/or material | 469 |
| Webbed backrest, other upholstery size and/or material | 506 |
| Support backrest, other upholstery size and/or material | 511 |
| Backrest with straps, other upholstery size and/or material | 597 |
| Backrest with straps, active, other upholstery size and/or material | 620 |
| Backrest with straps, active flexible, other upholstery size and/or material | 613 |

- 010 Headrest



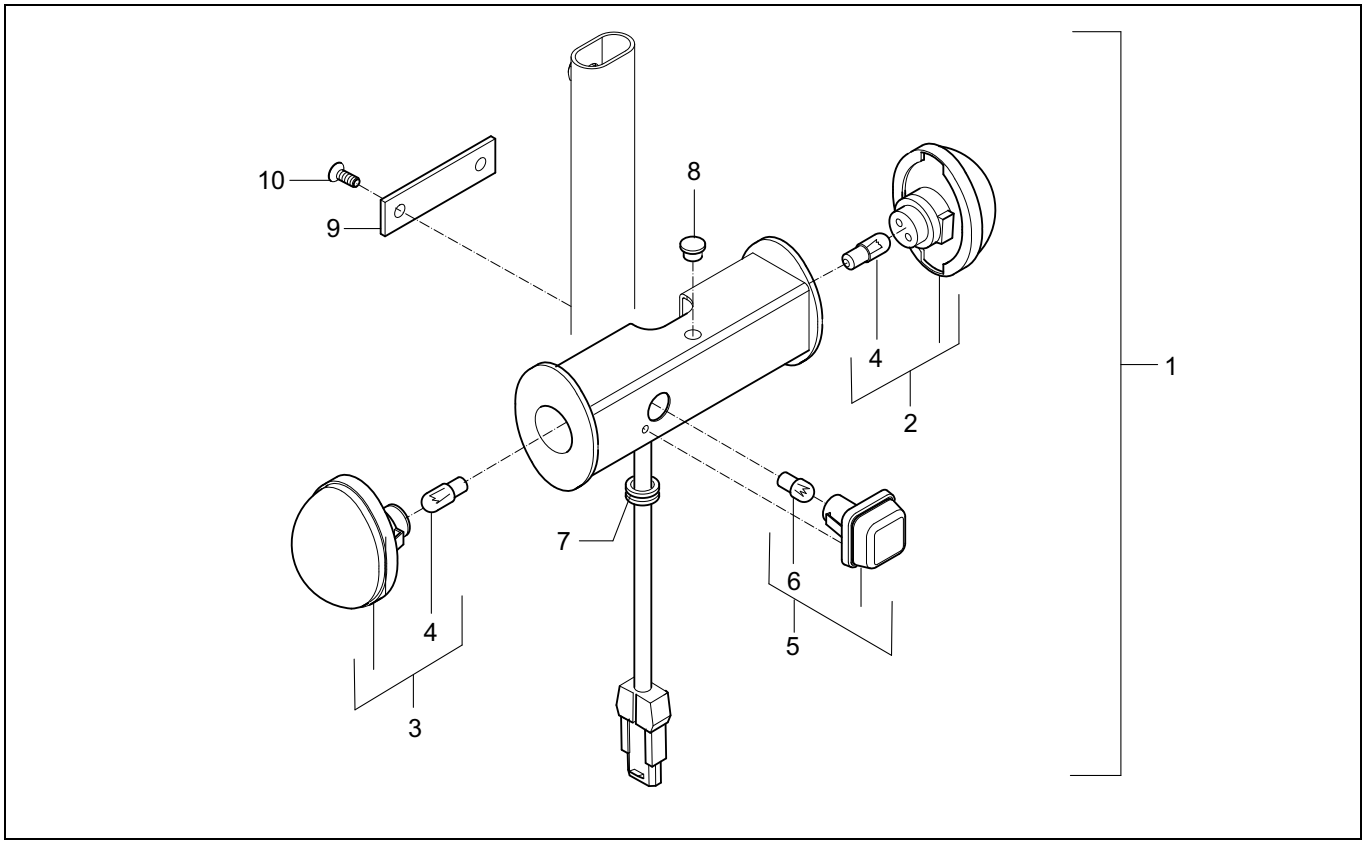

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| | 222.00151.505 | 1 | Headrest type 4, small mode, black Sellaskin | IP12350 |
| | 222.00131.505 | 1 | Headrest Type 3, Flexible, black Sellaskin | IP20951 |
| | 222.00111.505 | 1 | Headrest Type 2, Large, black Sellaskin | IP20952 |
| 2 | 00000.3206 | 8 | Screw bck/kr M5X16 D7985 | IP12152 |
| | 02193.0023 | 1 | Metal Section Headrest. Standard Adjustable | IP20954 |
| 3 | 02194.0023 | 1 | Metal Section Headrest. With Adjustable Width | IP12356 |
| | 906.00000.161 | 1 | Metal Section Headrest. With angle lever | IP20956 |
| 4 | 01183.9023 | 1 | Headrest adjustment holder | IP12253 |
| 5 | 00000.3206 | 8 | Screw bck/kr M5X16 D7985 | IP12254 |
| 6 | 00000.6801 | 1 | Star knob outs M8X30 BLACK MH | IP12353 |
| 7 | 00000.9301 | 1 | Insert cap 15mm square | IP12354 |

- 011 Arm rests



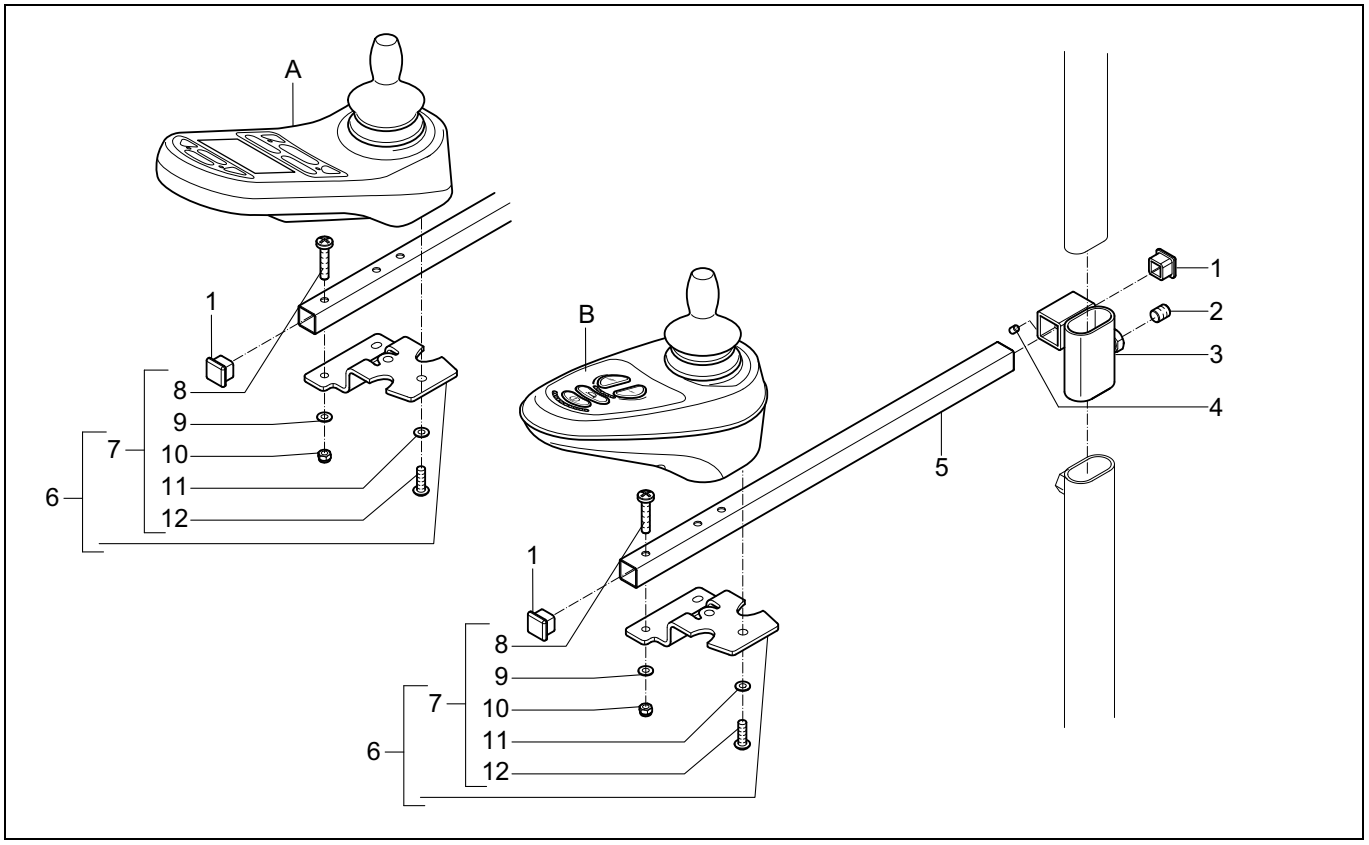

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 05373.9490 | 1 | Armrest PU left | ALP11150 |
| | 05373.9390 | 1 | Armrest PU right | ALP11151 |
| | 221.00131.505 | 1 | Armrest 30 cm, black Sellaskin | ALP11152 |
| | 221.00111.505 | 1 | Armrest 40 cm, black Sellaskin | IP12150 |
| | 221.00301.505 | 1 | Armrest P-Shape L/H, black Sellaskin | ALP11153 |
| | 221.00291.505 | 1 | Armrest P-Shape R/H, black Sellaskin | ALP11154 |
| 2 | 00000.2201 | 4 | Spring washer M5 D127B/VZ | ALP11155 |
| 3 | 00000.3207 | 4 | Screw BCK/KR M5X20 D7985 | ALP11156 |
| 4 | 05040.0223 | 1 | Armrest upper part left for armrest PU | ALP11157 |
| | 05040.0123 | 1 | Armrest upper part right for armrest PU | ALP11158 |
| | 02040.0123 | 2 | Armrest upper part short for armrest 30cm | ALP11159 |
| | 02040.0323 | 2 | Armrest upper part long for armrest 40cm | ALP11160 |
| 5 | 05372.9390 | 2 | Side Cushion PU | ALP11161 |
| | 224.00241.505 | 2 | Side cushion, upholstered, black Sellaskin | ALP11162 |
| | 224.00281.505 | 1 | Side Cushion Wedge Shaped L/H | ALP11163 |
| | 224.00261.505 | 1 | Side Cushion Wedge Shaped R/H | ALP11164 |
| 6 | 00001.0551 | 4 | Cap | ALP11165 |
| 7 | 00000.1700 | 4 | Lock nut M5 D985/8/VZ | ALP11166 |
| 8 | 00000.5721 | 4 | Spacer bush 5.2X15X10 PE Black | ALP11167 |
| 9 | 05372.0223 | 2 | Strip | ALP11168 |
| 10 | 02040.0782 | 2 | Bracket | IP12155 |
| 11 | 00000.3213 | 4 | Screw M5x35 | ALP11169 |
| 12 | 00000.3501 | 2 | Adjusting screw BZK M8X10 D913/VZ | ALP11170 |
| 13 | 9002126 | 2 | Arm rest mounting bracket | ALP11171 |

- 012 Lighting



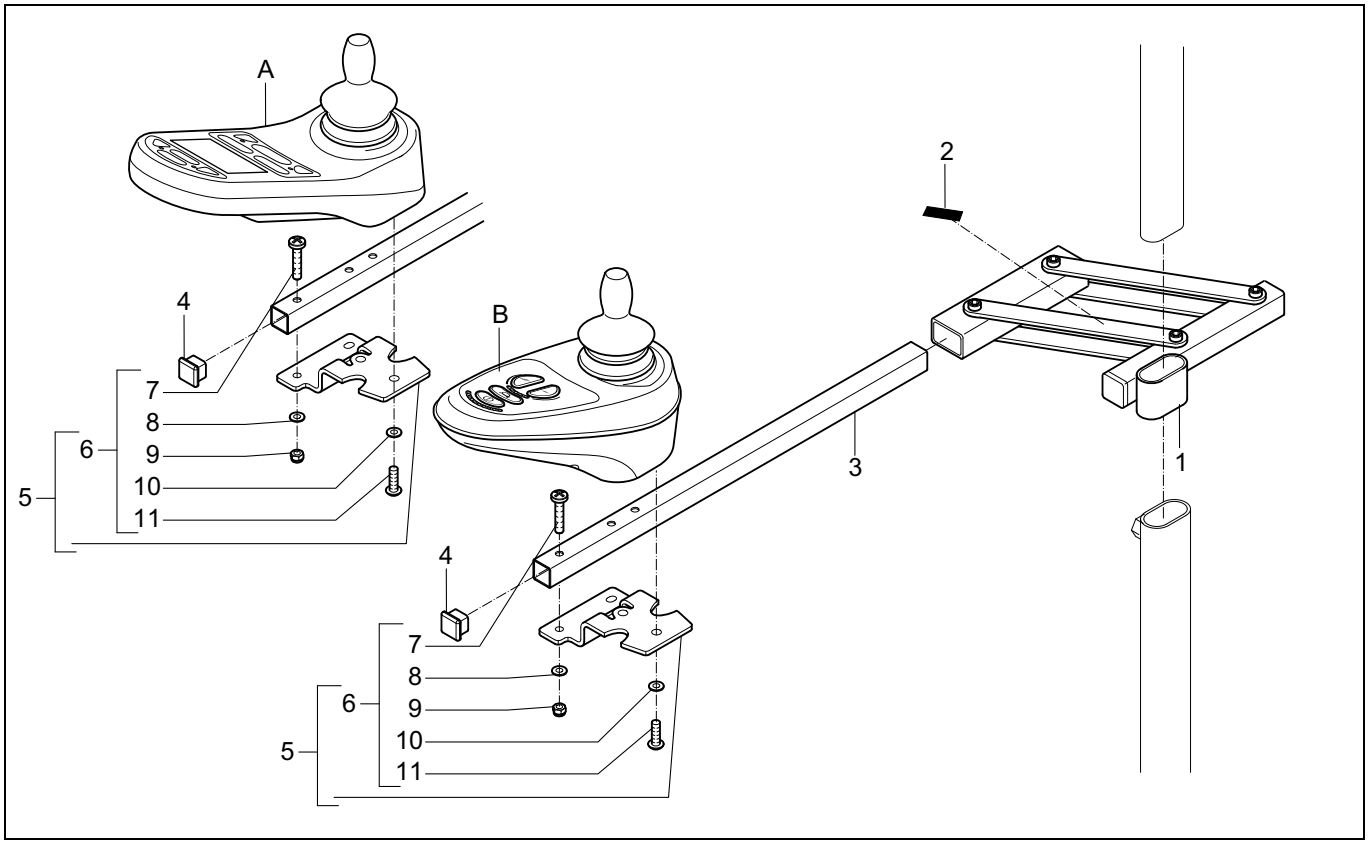

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 1007951 | 2 | Light unit | ALP11250 |
| 2 | 1001122 | 2 | Headlight white | ALP11251 |
| 3 | 264.00091.000 | 2 | Rear light red | ALP11252 |
| 4 | 6234 | 4 | Bulb 24V 5W t9.5 | ALP11253 |
| 5 | 264.00111.000 | 1 | Signal light | ALP11254 |
| 6 | 1272 | 2 | Bulb 24v 5w ba9s | ALP11255 |
| 7 | 1001724 | 2 | Grommet | ALP11256 |
| 8 | 00000.9009 | 2 | Insert cap round 15 Black | ALP11257 |
| 9 | 1001436 | 2 | Compact lighting, mounting plate | ALP11258 |
| 10 | 00000.3618 | 4 | Screw M6X8 | ALP11259 |

- 013 Fixed joystick bracket



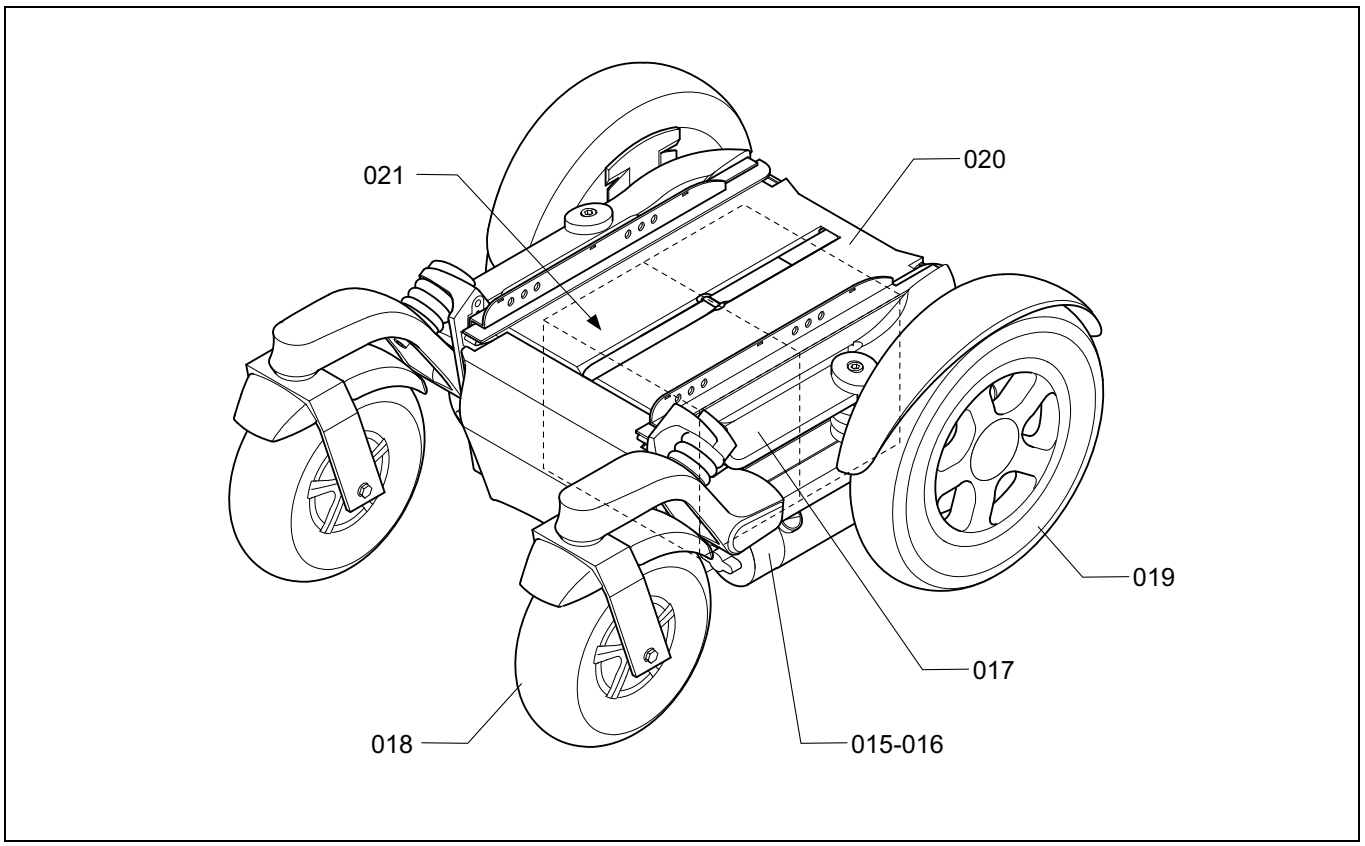

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 00000.9301 | 2 | Insert cap 15mm | IP12354 |
| 2 | 00000.3541 | 1 | Adjusting screw + crater M8X10 D916 | ALP11350 |
| 3 | 06040.0923 | 1 | Fixed bracket for remote | ALP11351 |
| 4 | 00000.3541 | 1 | Adjusting screw + crater M8X10 D916 | ALP11350 |
| 5 | 15040.0823 | 1 | Tube for remote | ALP11352 |
| 6 | 9002798 | 1 | Joystick module adaptor | ALP11353 |
| 7 | 9002824 | 1 | Mounting set for joystick adaptor | ALP11354 |
| 8 | 00000.3212 | 2 | Screw M4X25 | ALP11355 |
| 9 | 00000.2006 | 2 | Washer flat M4 | ALP11356 |
| 10 | 00000.1705 | 2 | Lock nut M4xP0.7 | ALP11357 |
| 11 | 00000.2201 | 4 | Spring washer M5 D127B/VZ | ALP11358 |
| 12 | 00000.3206 | 4 | Screw bck/kr M5X16 D7985 | ALP11359 |
| A | | | See: 025 Wiring and modules R-net | |
| B | | | See: 026 Wiring and modules VR2 | |

- 014 Swing-away joystick bracket




| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 05041.9123 | 1 | Swing-away bracket for remote right | ALP11450 |
| | 165.00111.000 | 1 | Swing-away bracket for remote left | ALP11451 |
| 2 | 008.00000.191 | 1 | Label | ALP11452 |
| 3 | 15040.0823 | 1 | Tube for remote | ALP11353 |
| 4 | 00000.9301 | 2 | Insert cap 15mm | IP12354 |
| 5 | 9002798 | 1 | Joystick module adaptor | ALP11353 |
| 6 | 9002824 | 1 | Mounting set for joystick adaptor | ALP11354 |
| 7 | 00000.3212 | 2 | Screw M4X25 | ALP11355 |
| 8 | 00000.2006 | 2 | Washer flat M4 | ALP11356 |
| 9 | 00000.1705 | 2 | Lock nut M4xP0.7 | ALP11357 |
| 10 | 00000.2201 | 2 | Spring washer M5 D127B/VZ | ALP11358 |
| 11 | 00000.3206 | 2 | Screw bck/kr M5X16 D7985 | ALP11359 |
| A | | | See: 025 Wiring and modules R-net | |
| B | | | See: 026 Wiring and modules VR2 | |

### *5.2 Carrier*




| Drawing | Description | Page |
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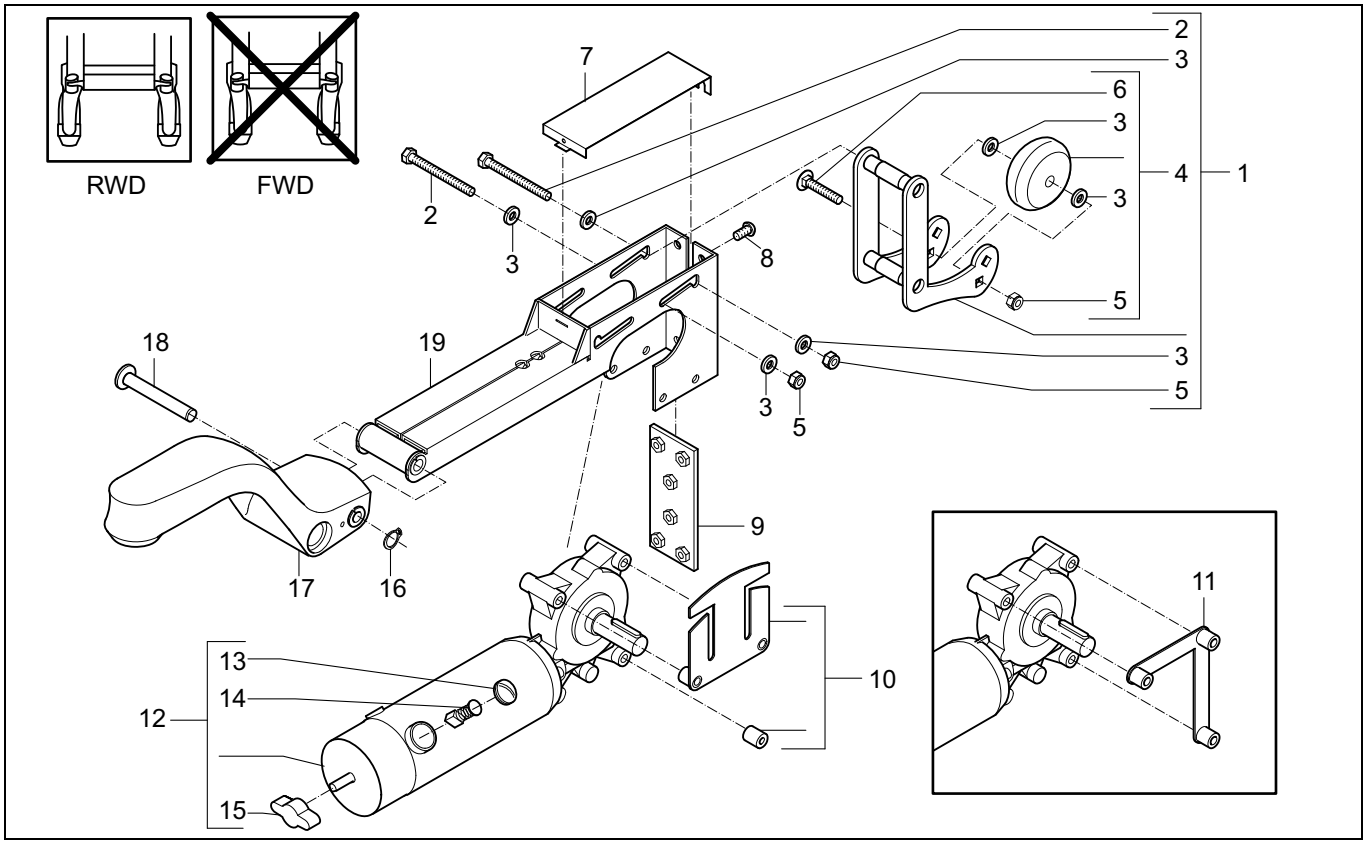
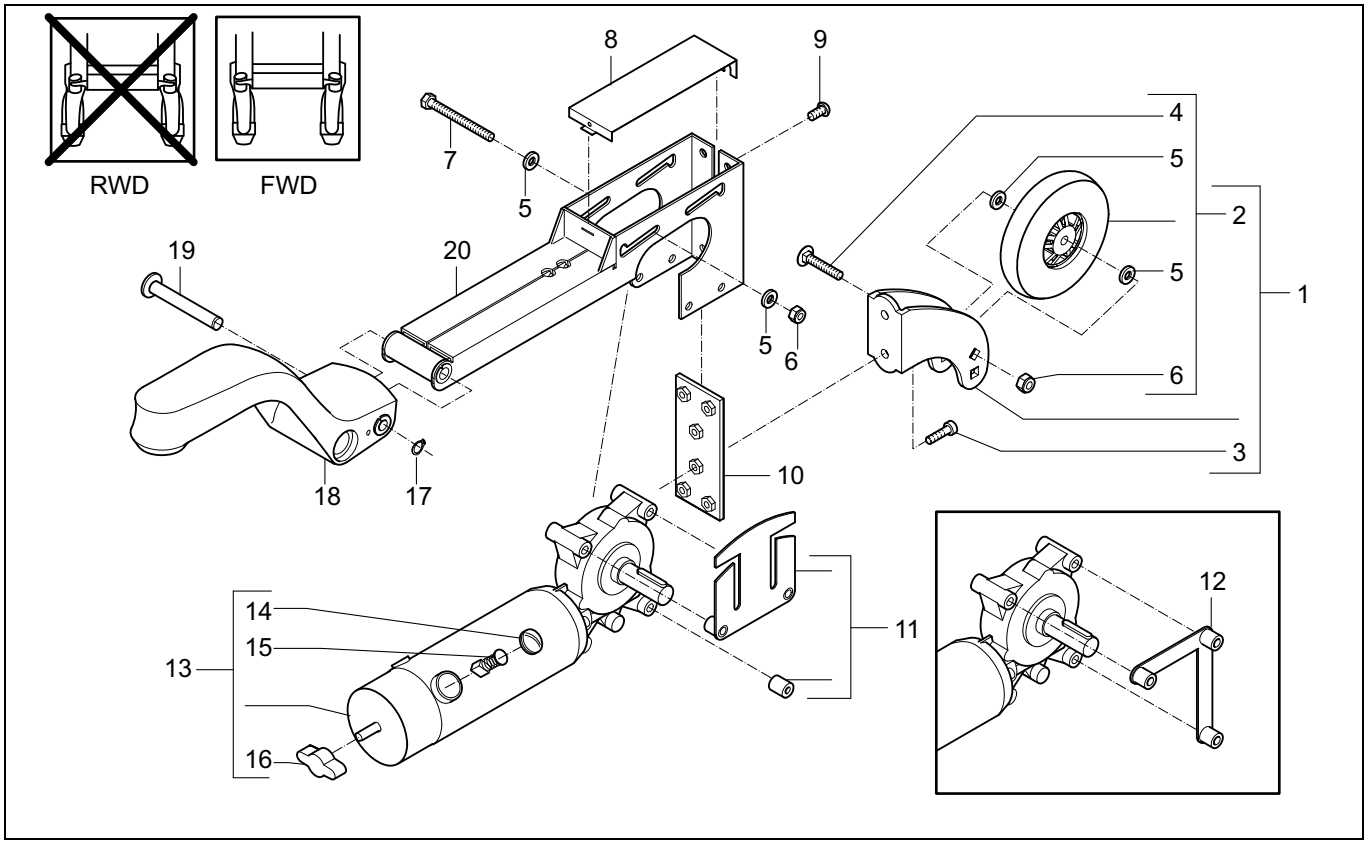
| 016 | Suspension arm and motor FWD | 39 |
| 017 | Battery tray and suspension | 40 |
| 018 | Swivel wheels | 41 |
| 019 | Drive wheel | 42 |
| 020 | Covers | 43 |
| 021 | Batteries | 44 |

- 015 Suspension arm and motor RWD



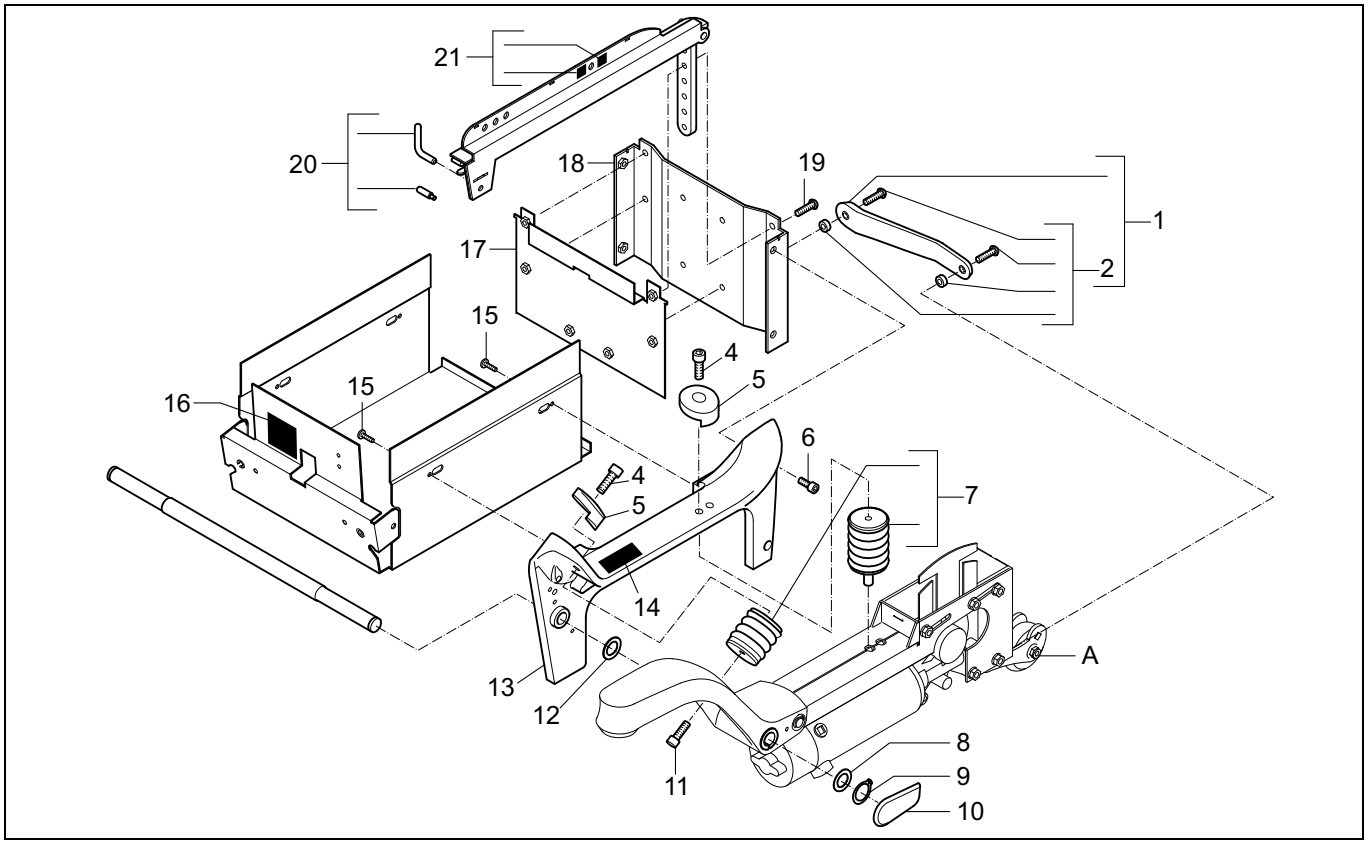

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002895 | 2 | Anti tipper RWD | ALP11550 |
| 2 | 00000.4101 | 10 | Hexagon bolt M8x80 | ALP11551 |
| 3 | 00000.2003 | 20 | Washer flat M8 | IP11453 |
| 4 | 9002897 | 2 | Anti tipper wheel RWD | ALP11552 |
| 5 | 00000.1702 | 12 | Locknut M8 | IP11669 |
| 6 | 9002569 | 2 | Carriage bolt M8x45 | ALP11553 |
| 7 | 9003083 | 2 | Motor arm cover | ALP11554 |
| 8 | 9002583 | 4 | Buttonhead M8x16 | ALP11555 |
| 9 | 9002905 | 2 | Multi support plate | ALP11556 |
| 10 | 9002833 | 2 | Motor spacer for mudgard | ALP11557 |
| 11 | 9002800 | 2 | Motor spacer no mudguard | ALP11558 |
| 12 | 9002860 | 1 | Motor 6 km/h RWD left / FWD right | ALP11559 |
| | 9002861 | 1 | Motor 6 km/h RWD right / FWD left | ALP11560 |
| | 9002862 | 1 | Motor 10 km/h RWD left / FWD right | ALP11561 |
| | 9002863 | 1 | Motor 10 km/h RWD right / FWD left | ALP11562 |
| | 9002864 | 1 | Motor 12 km/h RWD left / FWD right | ALP11563 |
| | 9002865 | 1 | Motor 12 km/h RWD right / FWD left | ALP11564 |
| 13 | | | See pos 14 | - |
| 14 | 9002866 | 1 | Motor brush set, Alex (4 brushes with covers) | ALP11565 |
| 15 | 9003290 | 2 | Free wheel lever | ALP11566 |
| 16 | 9002568 | 2 | Retaining ring 12mm | ALP11567 |
| 17 | 9002874 | 1 | Castor arm q grey RWD left / FWD right | ALP11568 |
| | 9002873 | 1 | Castor arm p grey RWD right / FWD left | ALP11569 |
| 18 | 9002340 | 2 | Secondary suspension axle | ALP11570 |
| 19 | 9002878 | 2 | Motor bracket grey | ALP11571 |

- 016 Suspension arm and motor FWD



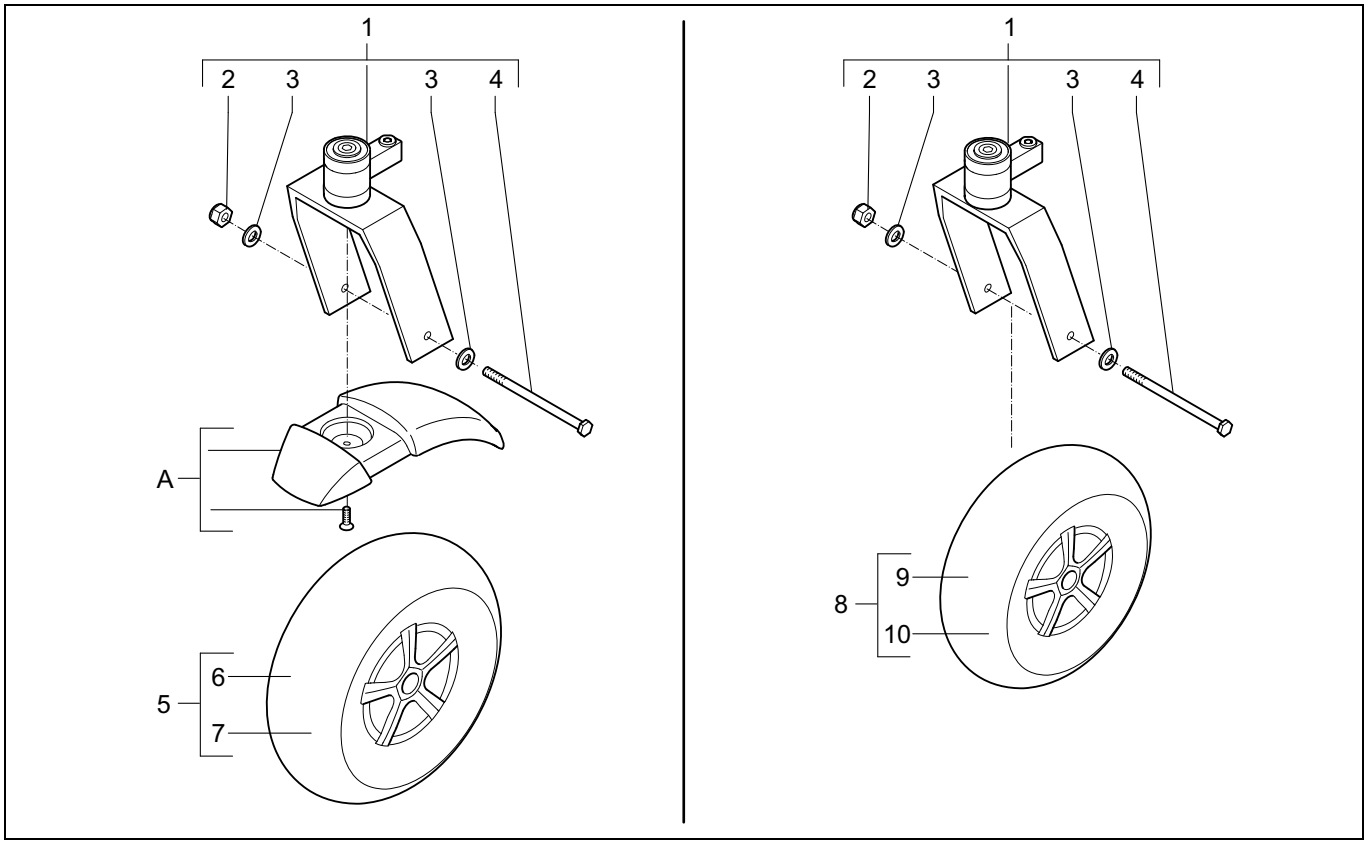

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002894 | 2 | Anti tipper FWD | ALP11650 |
| 2 | 9002896 | 2 | Anti tipper wheel FWD | ALP11651 |
| 3 | 9002294 | 4 | Buttonhead M8x20 | ALP11652 |
| 4 | 9002569 | 2 | Carriage bolt M8x45 | ALP11553 |
| 5 | 00000.2003 | 10 | Washer flat M8 | IP11453 |
| 6 | 00000.1702 | 8 | Locknut M8 | IP11669 |
| 7 | 00000.4101 | 6 | Hexagon bolt M8x80 | ALP11551 |
| 8 | 9003083 | 2 | Motor arm cover | ALP11554 |
| 9 | 9002583 | 4 | Buttonhead M8x16 | ALP11555 |
| 10 | 9002905 | 2 | Multi support plate | ALP11556 |
| 11 | 9002833 | 2 | Motor spacer for mudgard | ALP11557 |
| 12 | 9002800 | 2 | Motor spacer no mudguard | ALP11558 |
| 13 | 9002860 | 1 | Motor 6 km/h RWD left / FWD right | ALP11559 |
| | 9002861 | 1 | Motor 6 km/h RWD right / FWD left | ALP11560 |
| | 9002862 | 1 | Motor 10 km/h RWD left / FWD right | ALP11561 |
| | 9002863 | 1 | Motor 10 km/h RWD right / FWD left | ALP11562 |
| | 9002864 | 1 | Motor 12 km/h RWD left / FWD right | ALP11563 |
| | 9002865 | 1 | Motor 12 km/h RWD right / FWD left | ALP11564 |
| 14 | | | See pos 15 | - |
| 15 | 9002866 | 1 | Motor brush set, Alex (4 brushes with covers) | ALP11565 |
| 16 | 9003290 | 2 | Free wheel lever | ALP11566 |
| 17 | 9002568 | 2 | Retaining ring 12mm | ALP11567 |
| 18 | 9002874 | 1 | Castor arm q grey | ALP11568 |
| | 9002873 | 1 | Castor arm p grey | ALP11569 |
| 19 | 9002340 | 2 | Secondary suspension axle | ALP11570 |
| 20 | 9002878 | 2 | Motor bracket grey | ALP11571 |

- 017 Battery tray and suspension



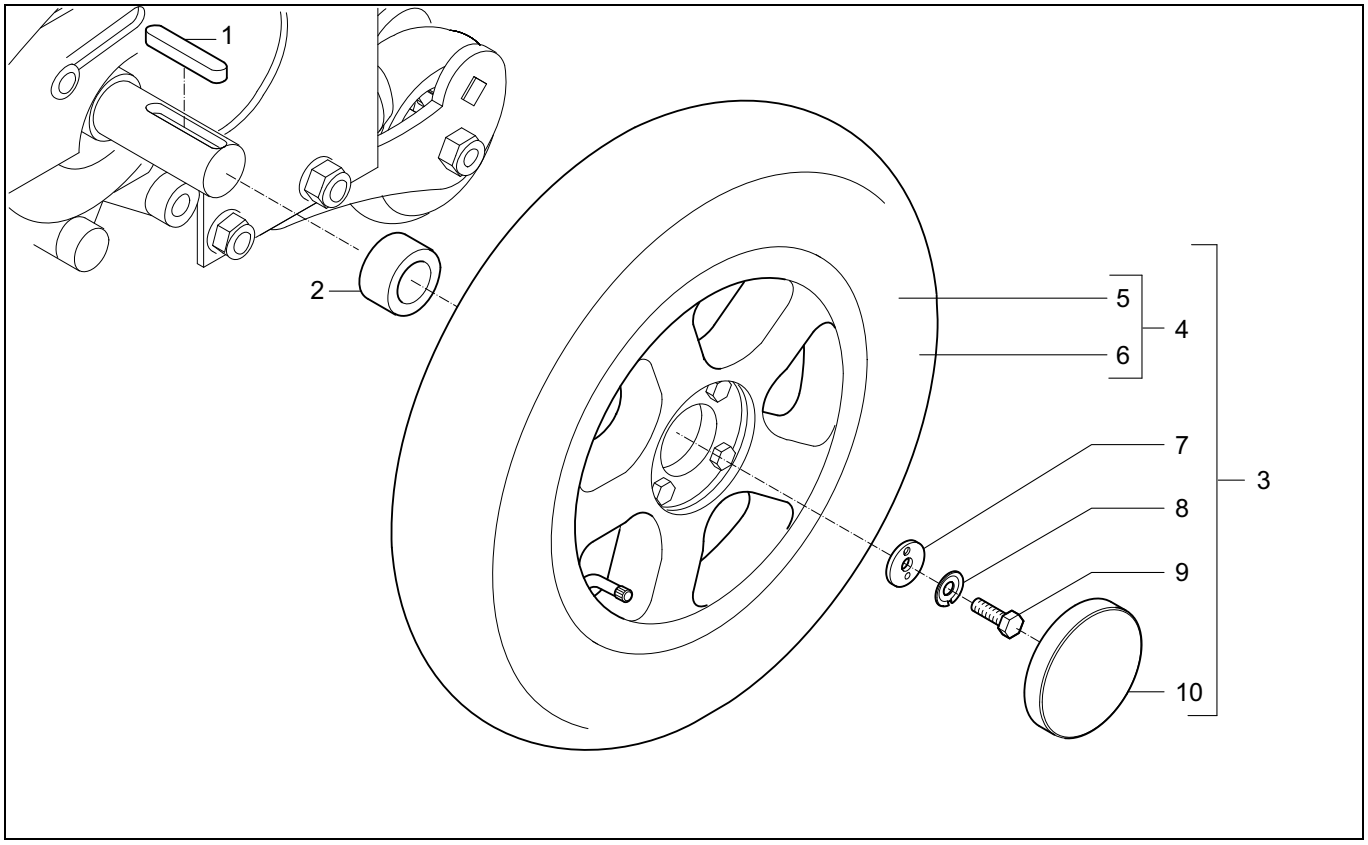

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002898 | 4 | Wishbone Silver | ALP11750 |
| | 9002899 | 4 | Wishbone Black | ALP11751 |
| | 9002900 | 4 | Wishbone Green | ALP11752 |
| | 9002901 | 4 | Wishbone Orange | ALP11753 |
| | 9002902 | 4 | Wishbone Aubergine | ALP11754 |
| | 9002903 | 4 | Wishbone Pink | ALP11755 |
| 2 | 9002812 | 4 | Mounting set for wishbone | ALP11756 |
| 4 | 9002567 | 4 | Socket head screw M10x30 | ALP11757 |
| 5 | 9002904 | 4 | Rubber cover Silver | ALP11758 |
| | 9002893 | 4 | Rubber cover Black | ALP11759 |
| | 9002876 | 4 | Rubber cover Green | ALP11760 |
| | 9002879 | 4 | Rubber cover Orange | ALP11761 |
| | 9002887 | 4 | Rubber cover Aubergine | ALP11762 |
| | 9002890 | 4 | Rubber cover Pink | ALP11763 |
| 6 | 9002294 | 4 | Socket head screw M8x20 | ALP11652 |
| 7 | 9002882 | 1 | Suspension rubber set | ALP11764 |
| | 1010143 | 1 | Suspension rubber set heavy duty | ALP11765 |
| 8 | 9002599 | 2 | Shim ring 20x32x1 | ALP11766 |
| 9 | 9002268 | 2 | Retaining ring 20mm | ALP11767 |
| 10 | 9002891 | 1 | Castor arm cover set | ALP11768 |
| 11 | 9002567 | 2 | Socket head screw M10x30 | ALP11757 |
| 12 | 9002599 | 2 | Shim ring 20x32x1 | ALP11766 |
| 13 | 9002871 | 1 | Body casting RWD left / FWD right gray | ALP11769 |
| | 9002872 | 1 | Body casting RWD right / FWD left gray | ALP11770 |
| 14 | 9002799 | 2 | Alex logo | ALP11771 |
| 15 | 9002265 | 4 | Pan head taptite M6x12 | ALP11772 |
| 16 | 9002779 | 1 | Sticker sheet R-net | ALP11773 |
| | 9002778 | 1 | Sticker sheet VR-2 | ALP11774 |
| 17 | 9002877 | 1 | Rear plate inside gray | ALP11775 |
| 18 | 9002875 | 1 | Rear plate outside gray | ALP11776 |
| 19 | 9002341 | 4 | Buttonhead M8x30 | ALP11777 |
| 20 | 9002795 | 1 | Height adjustment set | ALP11778 |
| 21 | 9002782 | 4 | Sticker 'check manual' | ALP11779 |
| A | | | See 015 and 016: Suspension arm and motor | |

- 018 Swivel castor



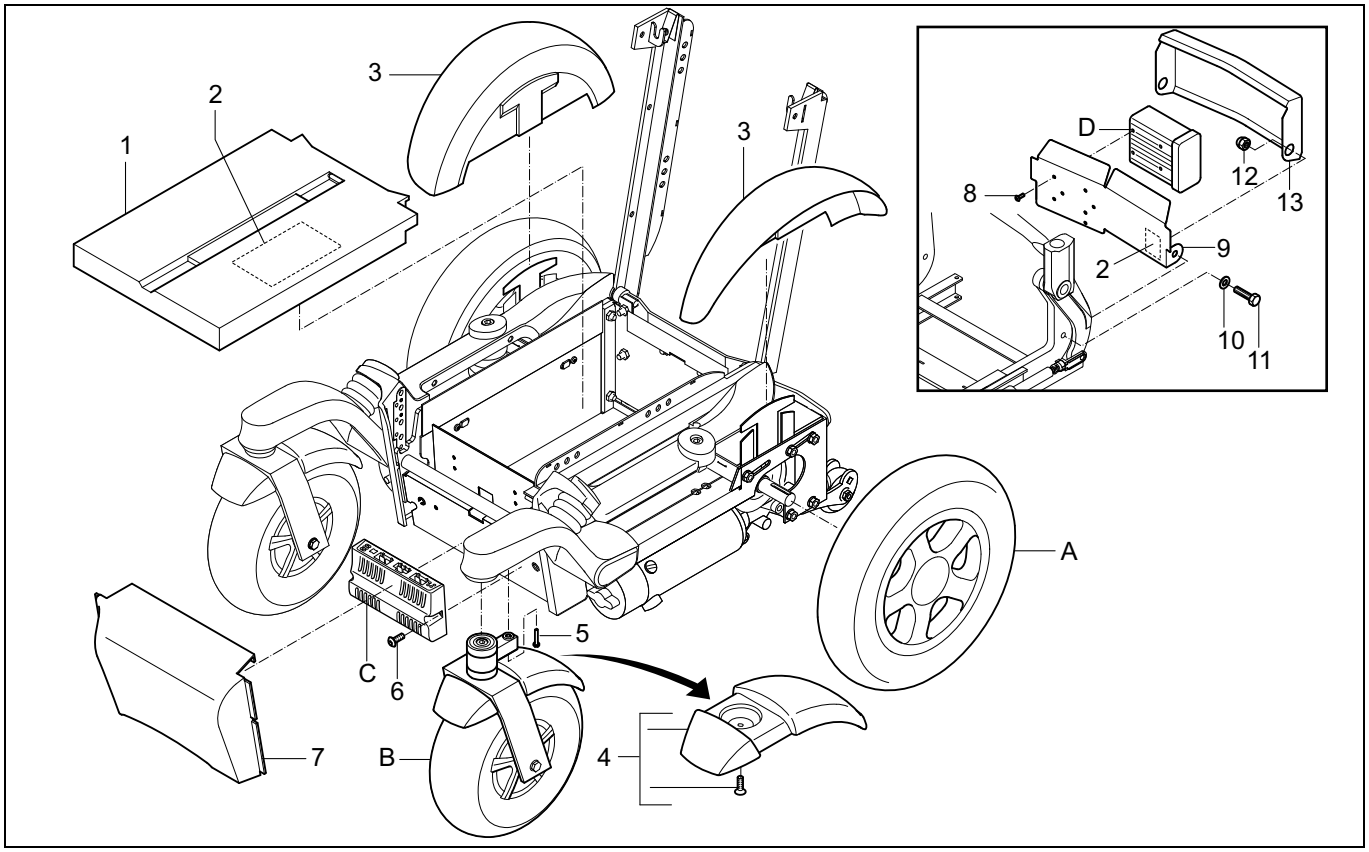

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002836 | 2 | Castor fork | ALP11850 |
| 2 | 00000.1702 | 2 | Locknut M8 | IP11669 |
| 3 | 00000.2003 | 4 | Washer flat M8 | IP11453 |
| 4 | 001.03010.003 | 2 | Hexagon bolt M8x125 | ALP11851 |
| 5 | 9002888 | 2 | Castor wheel outdoor air RWD left / FWD right | ALP11852 |
| | 9002889 | 2 | Castor wheel outdoor air RWD right / FWD left | ALP11853 |
| | 9002854 | 2 | Castor wheel outdoor punctureproof RWD left / FWD right | ALP11854 |
| | 9002855 | 2 | Castor wheel outdoor punctureproof RWD right / FWD left | ALP11855 |
| ~~6~~ | ~~9002857~~ | ~~2~~ | ~~Castor outdoor tube~~ | ~~ALP11856~~ |
| ~~7~~ | ~~9002859~~ | ~~2~~ | ~~Castor outdoor tire~~ | ~~ALP11857~~ |
| ~~8~~ | ~~9002852~~ | ~~2~~ | ~~Castor-wheel indoor air~~ | ~~ALP11858~~ |
| | ~~9002853~~ | ~~2~~ | ~~Castor-wheel indoor punctureproof~~ | ~~ALP11859~~ |
| ~~9~~ | ~~9002856~~ | ~~2~~ | ~~Castor tire indoor~~ | ~~ALP11860~~ |
| ~~10~~ | ~~9002858~~ | ~~2~~ | ~~Castor tube indoor~~ | ~~ALP11861~~ |
| A | | | See 020: Covers | |

- 019 Drive wheel



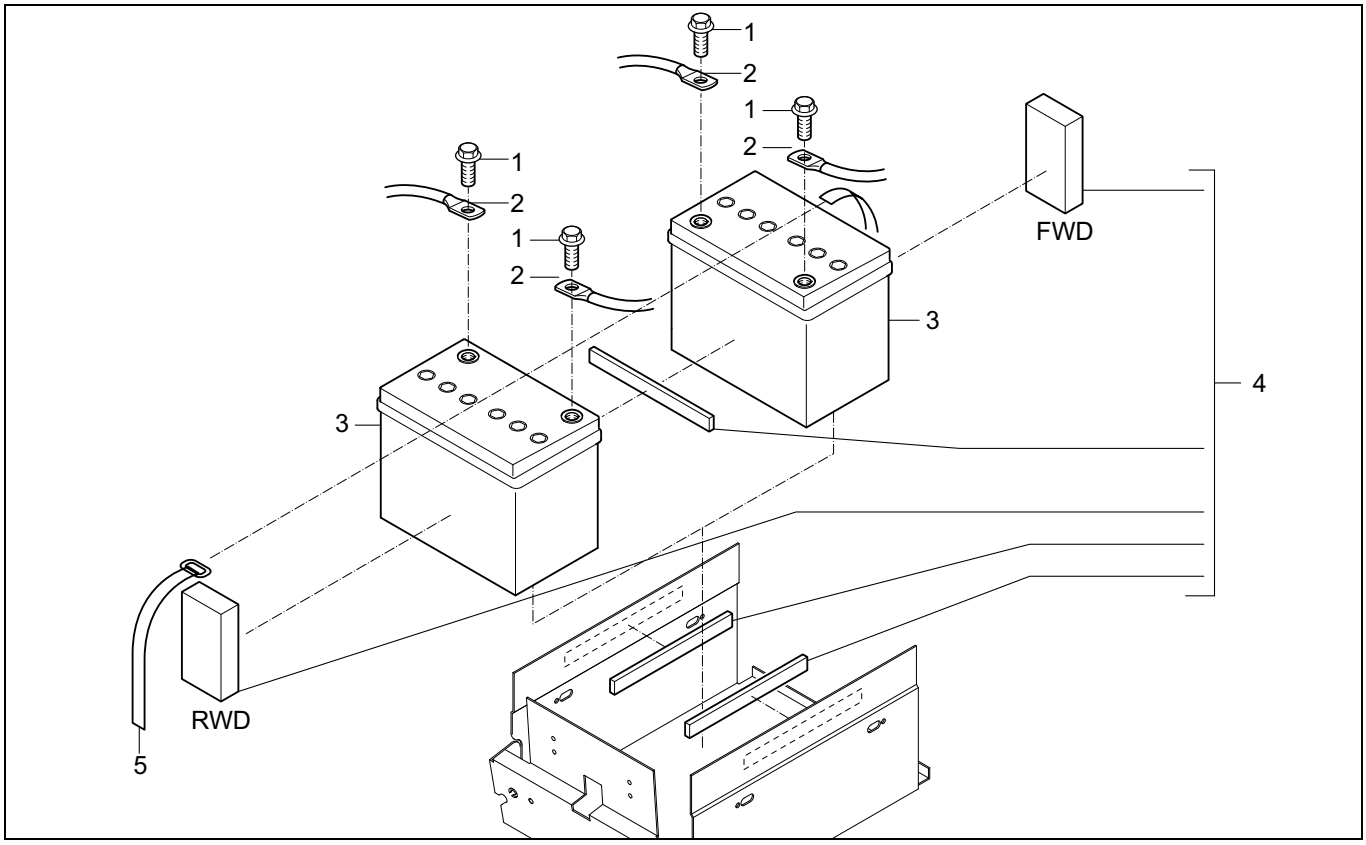

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 176.00151.010 | 2 | Key 31x6x6 | ALP11950 |
| 2 | 9002348 | 2 | Spacer for outdoor drive wheel | ALP11951 |
| 3 | 9002844 | 2 | Drivewheel outdoor air | ALP11952 |
| | 9002845 | 2 | Drivewheel outdoor punctureproof | ALP11953 |
| | 9002846 | 2 | Drivewheel indoor air | ALP11954 |
| | 9002847 | 2 | Drivewheel indoor punctureproof | ALP11955 |
| 5 | 9002848 | 2 | Drivewheel outdoor tire | ALP11956 |
| | 9002849 | 2 | Drivewheel indoor tire | ALP11957 |
| 6 | 9002850 | 2 | Drivewheel outdoor tube | ALP11958 |
| | 9002851 | 2 | Drivewheel indoor tube | ALP11959 |
| 7 | 9002600 | 2 | Drive wheel bolt ring | ALP11960 |
| 8 | 9002588 | 2 | Locking plate | ALP11961 |
| 9 | 00000.4113 | 2 | Hexagon bolt M8x35 | ALP11962 |
| | 00000.4135 | 2 | Hexagon bolt M8x25 | IP20161 |
| 10 | 9002006 | 2 | Front cap, plastic grey ø80/ø83 X H9 mm | ALP11963 |
| 11 | 00000.2011 | 4 | Washer flat M20 | ALP11964 |

- 020 Covers



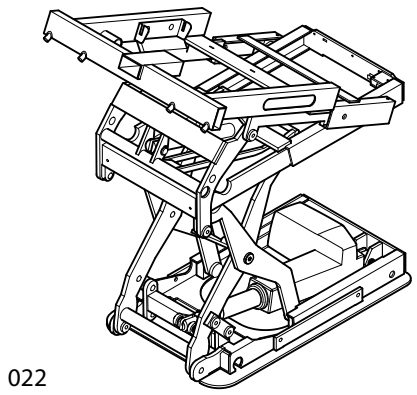

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002321 | 1 | Battery-cover Black | ALP12050 |
| 2 | 9002778 | 1 | Stickersheet Alex R-net | ALP11773 |
| | 9002779 | 1 | Stickersheet Alex VR-2 | ALP11774 |
| 3 | 9002319 | 2 | Drivewheel-mudguard Black | ALP12051 |
| | 9002336 | 2 | Drivewheel-mudguard Silver | ALP12052 |
| 4 | 9002793 | 2 | Castor-mudguard Black | ALP12053 |
| | 9002794 | 2 | Castor-mudguard Silver | ALP12054 |
| 5 | 9002596 | 2 | Taptite M6x35 | ALP12055 |
| 6 | 00000.4042 | 2 | Cheese head bolt | ALP12056 |
| 7 | 9002318 | 1 | Powermodule-cover Black | ALP12057 |
| 8 | 00000.3719 | 4 | Buttonhead M5x10 | ALP10156 |
| 9 | 9002797 | 1 | Electronics-rack Sedeo | ALP12058 |
| 10 | 00000.2004 | 2 | Washer flat M10 | ALP12059 |
| 11 | 00000.4324 | 2 | Hexagon bolt M10x30 | ALP12060 |
| 12 | 00000.1703 | 2 | Lock nut M10 | ALP12061 |
| 13 | 9002892 | 1 | Cover electronics-rack Sedeo | ALP12062 |
| A | | | See 019: Drive wheel | ALP12063 |
| B | | | See 018: Swivel castor | ALP12064 |

- 021 Batteries

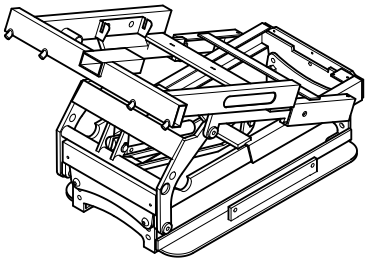



| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002752 | 2 | Assembly set battery connection | ALP12150 |
| 2 | | | See 025 and 026: Wiring and modules | |
| 3 | 9002759 | 2 | Battery (50Ah C5) (60Ah C20) | ALP12151 |
| | 9002760 | 2 | Battery (63Ah C5) (74Ah C20) | ALP12152 |
| 4 | 9002906 | 1 | Battery spacer set | ALP12153 |
| 5 | 9002775 | 1 | Battery-strap | ALP12154 |

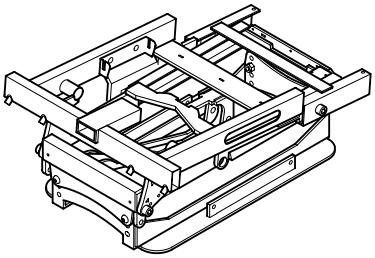
### *5.3 Seat adjustments, wiring and modules*



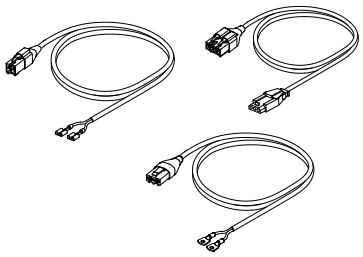
022



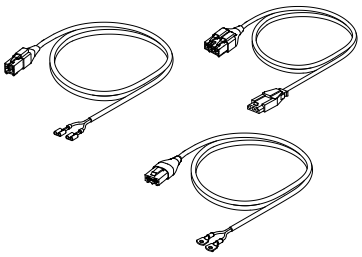
023



024



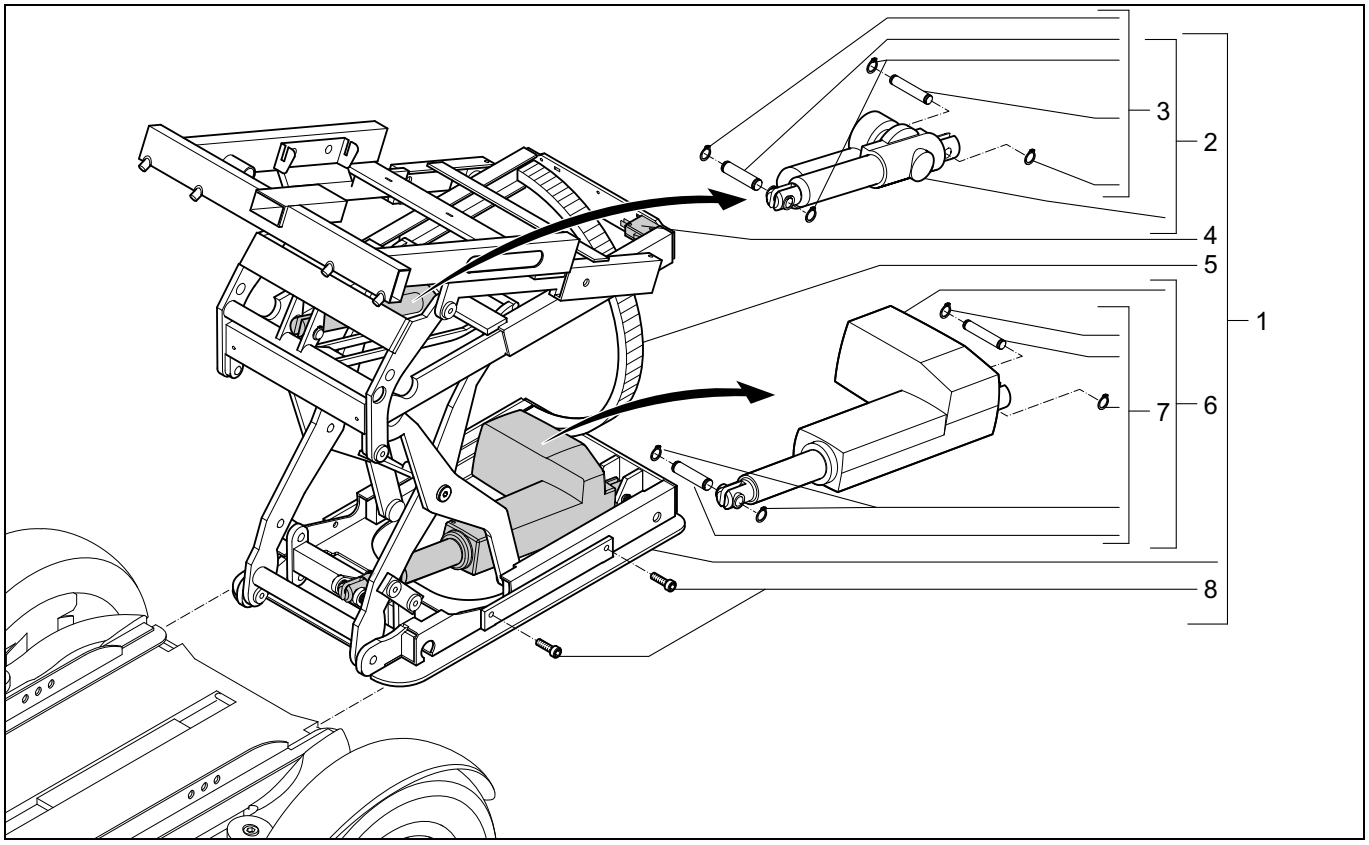
025



026

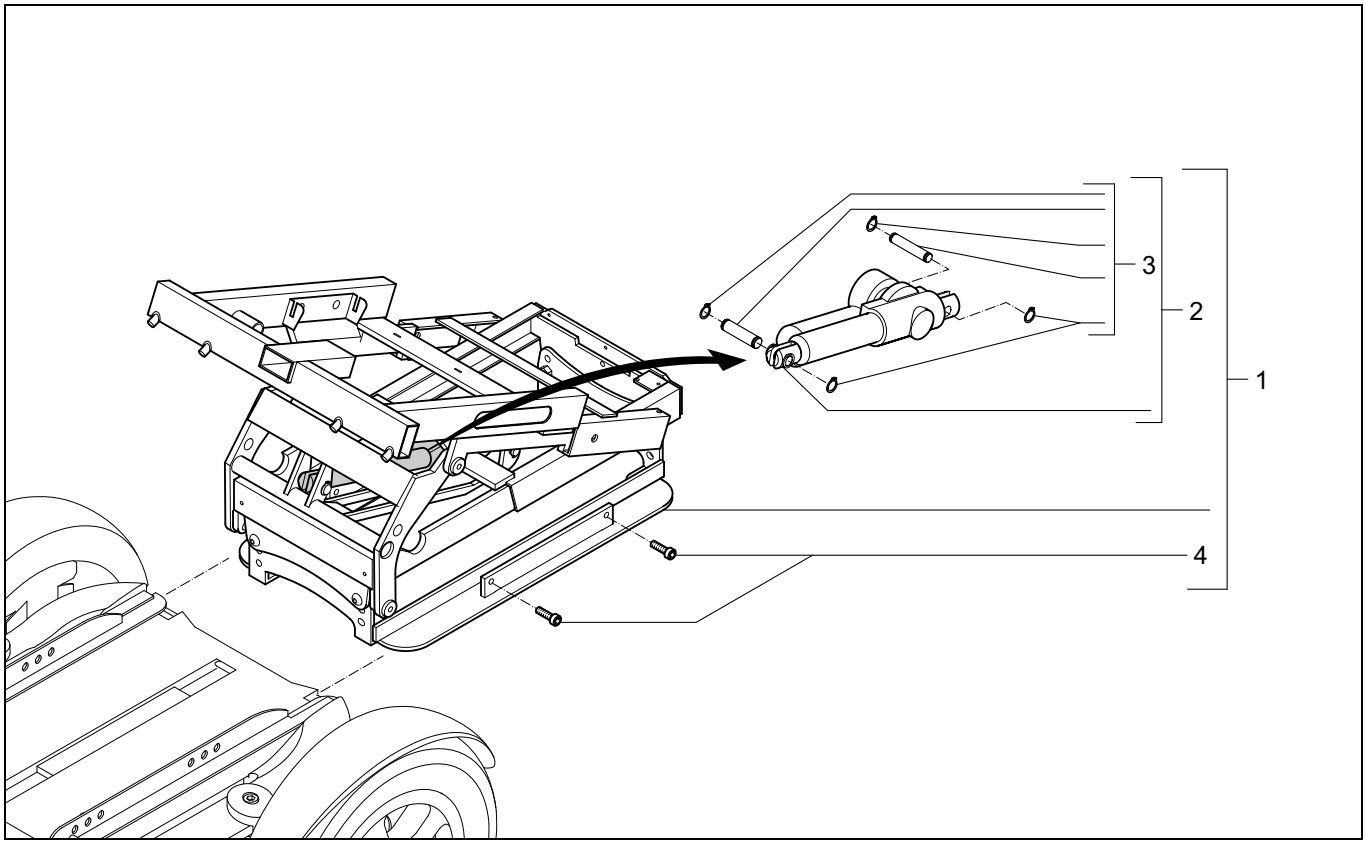
| Drawing | Description | Page |
|---|---|---|
| 022 | Electrical lift | 46 |
| 023 | Electrical tilt | 47 |
| 024 | Mechanical tilt | 48 |
| 025 | Wiring and modules R-net | 49 |
| 026 | Wiring and modules VR2 | 51 |

- 022 Electrical lift



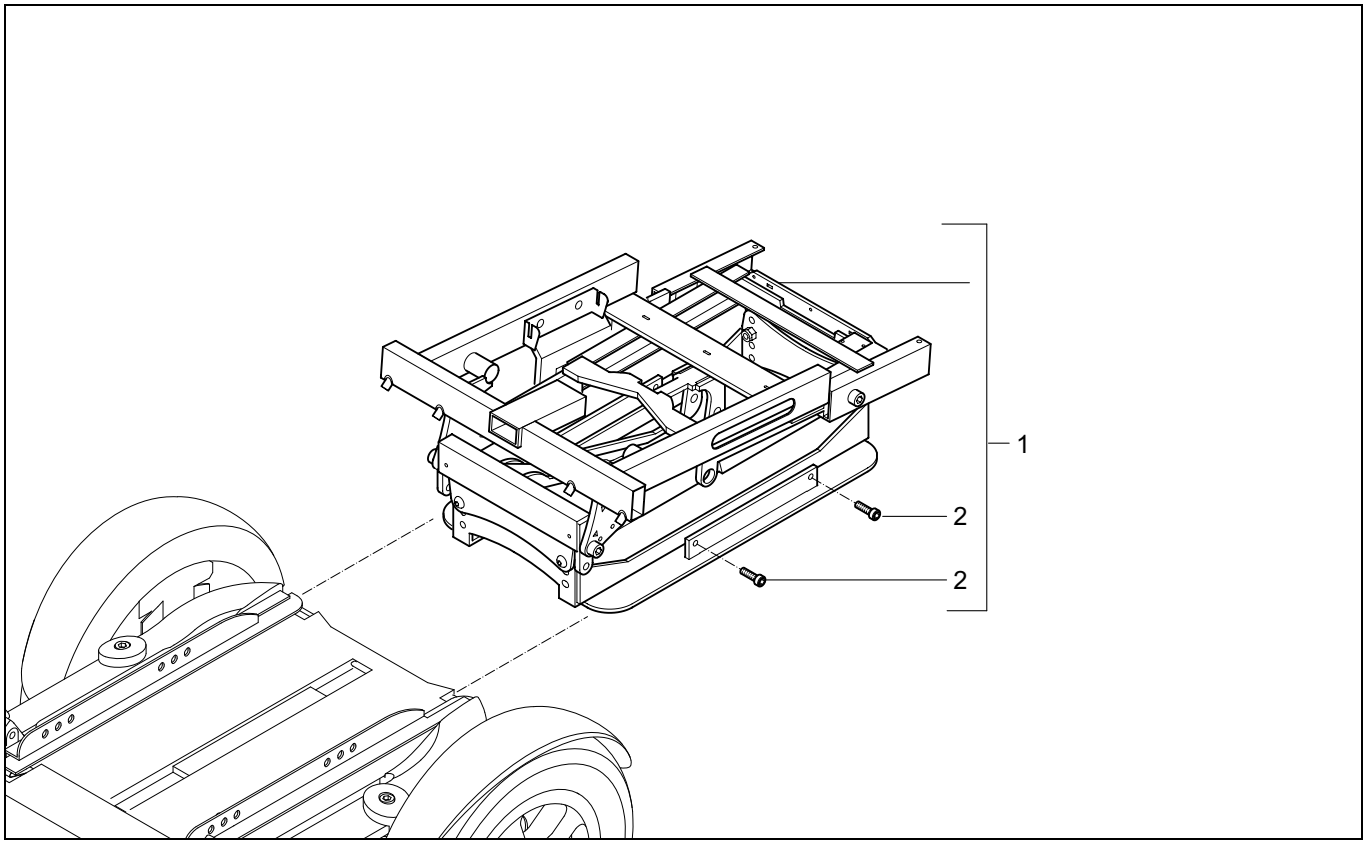

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002837 | 1 | Electrical lift with electrical tilt, Alex | ALP12250 |
| 2 | 9002841 | 1 | Tilt actuator, Alex | ALP12251 |
| 3 | 9002843 | 1 | Tilt axle set, Alex | ALP12252 |
| 4 | 9002835 | 1 | Alex lift microswitch | ALP12253 |
| 5 | 9002796 | 1 | Cable chain | ALP12254 |
| 6 | 9002840 | 1 | Alex lift actuator | ALP12255 |
| 7 | 9002842 | 1 | Alex lift axle set | ALP12256 |
| 8 | 9002592 | 4 | Cheese head bolt M 8x12 | ALP12257 |

- 023 Electrical tilt



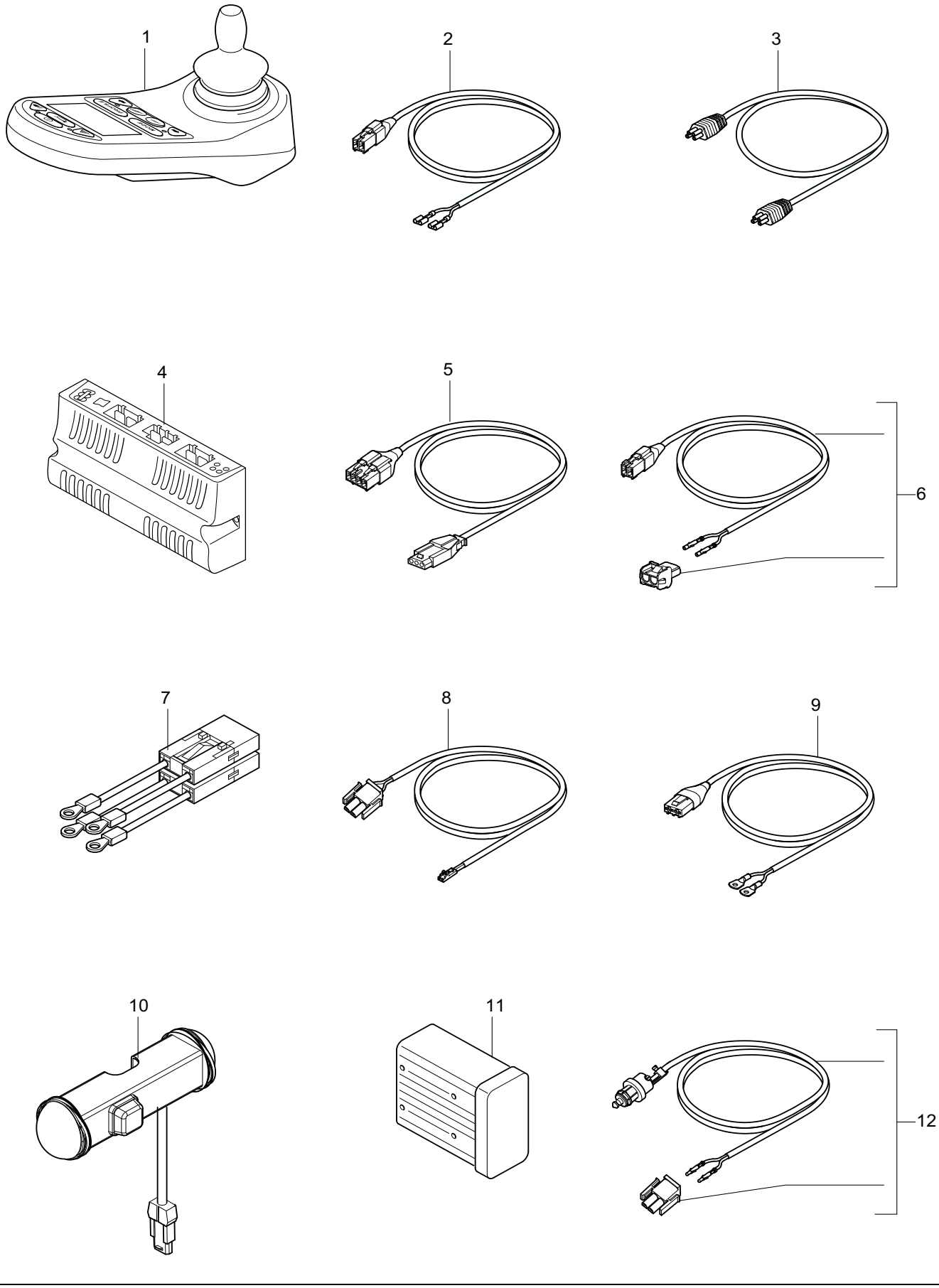

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002838 | 1 | Alex Lift-mech tilt-elec | ALP12350 |
| 2 | 9002841 | 1 | Alex tilt actuator | ALP12251 |
| 3 | 9002843 | 1 | Alex tilt axle set | ALP12252 |
| 4 | 9002592 | 4 | Cheese head bolt M8x12 | ALP12257 |

- 024 Mechanical tilt




| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002839 | 1 | Alex Lift-mech | ALP12450 |
| 2 | 9002592 | 4 | Cheese head bolt M8x12 | ALP12257 |

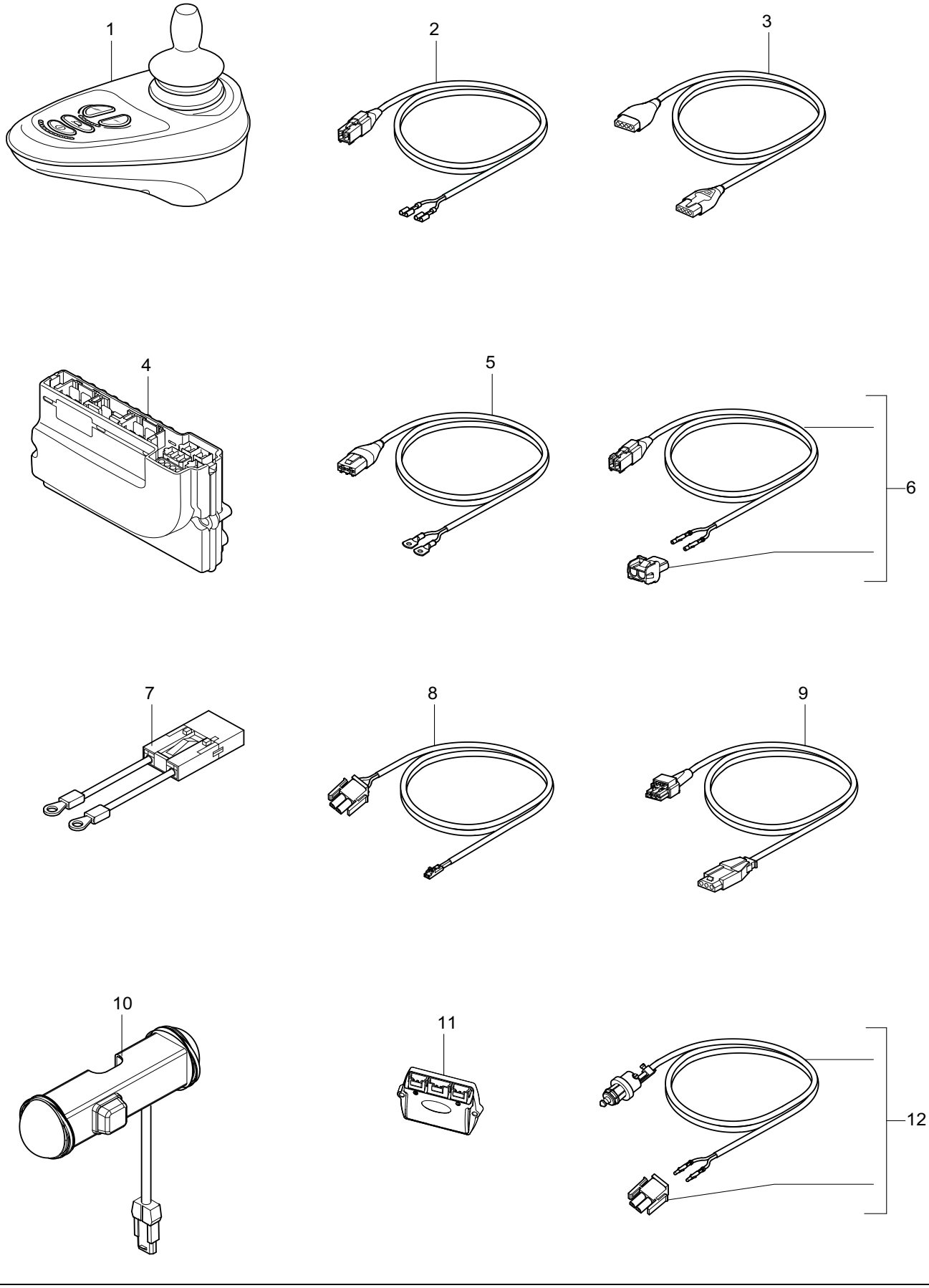
- 025 Wiring and modules R-net



- 025 Wiring and modules R-net

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002910 | 1 | R-net Joystick Module Full Colour | ALP12550 |
| 2 | 9002767 | 1 | Inhibit cable 0,75M, Alex | ALP12551 |
| | 9002273 | 1 | Inhibit cable 1,6M, Alex | ALP12552 |
| 3 | 9002579 | 1 | R-net bus cable 0,5M | ALP12553 |
| | 9002481 | 1 | R-net bus cable 1,0M | ALP12554 |
| | 9002483 | 1 | R-net bus cable 1,2M | ALP12555 |
| | 9002484 | 1 | R-net bus cable 1,5M | ALP12556 |
| | 9002482 | 1 | R-net bus cable 2,0M | ALP12557 |
| 4 | 9002918 | 1 | R-net 120A Power Module | ALP12558 |
| 5 | 9002274 | 2 | R-net lighting cable | ALP12559 |
| 6 | 9002919 | 1 | PG actuator cable 1,2M | ALP12560 |
| | 9002920 | 1 | PG actuator cable 0,5M | ALP12561 |
| | 9002921 | 1 | PG actuator cable 2,05M | ALP12562 |
| | 9002922 | 1 | PG actuator cable 1,55M | ALP12563 |
| 7 | 9002774 | 1 | R-net fuse cable 100A | ALP12564 |
| 8 | 9002615 | 1 | Actuator cable electrical back rest | ALP12565 |
| 9 | 9002347 | 1 | R-net / VR2 battery cable | ALP12566 |
| 10 | 1001123 | 1 | Compact light R+L incl. mounting plate | ALP12567 |
| 11 | 9002912 | 1 | R-net ISM 6 Actuators & Lights 1.2m | ALP12568 |
| 12 | 9002923 | 2 | Legrest cable, Alex | ALP12569 |
| - | 9002479 | 1 | R-net 4-way connector block | ALP12570 |
| - | 9003082 | 1 | Ferrite clamp | ALP12571 |

- 026 Wiring and modules VR2



- 026 Wiring and modules VR2

| Pos | Article number | Units | Description | |
|---|---|---|---|---|
| 1 | 9002907 | 1 | VR-2 Joystick Module Drive Only | ALP12650 |
| | 9002908 | 1 | VR-2 Joystick Module Lights | ALP2651 |
| | 9002909 | 1 | VR-2 Joystick Module Actuators & Lights | ALP12652 |
| 2 | 9002767 | 1 | Inhibit cable 0,75M, Alex | ALP12551 |
| | 9002273 | 1 | Inhibit cable 1,6M, Alex | ALP12552 |
| 3 | 9002305 | 1 | VR-2 extension cable 0,5M | ALP12653 |
| | 9002258 | 1 | VR-2 extension cable 1,6M | ALP12654 |
| 4 | 9002917 | 1 | VR-2 90A Power Module twin actuators | ALP12655 |
| | 9002916 | 1 | VR-2 90A Power Module | ALP12656 |
| 5 | 9002347 | 1 | R-net / VR2 battery cable | ALP12566 |
| 6 | 9002919 | 1 | PG actuator cable 1,2M | ALP12560 |
| | 9002920 | 1 | PG actuator cable 0,5M | ALP12561 |
| | 9002921 | 1 | PG actuator cable 2,05M | ALP12562 |
| | 9002922 | 1 | PG actuator cable 1,55M | ALP12563 |
| 7 | 9002473 | 1 | VR2 fuse cable 70A | ALP12657 |
| 8 | 9002615 | 1 | Actuator cable electrical back rest | ALP12565 |
| 9 | 9002764 | 2 | VR2 lighting cable | ALP12658 |
| 10 | 1001123 | 1 | Compact light R+L incl. mounting plate | ALP12567 |
| 11 | 9002911 | 1 | VR2 Lighting Module | ALP12659 |
| 12 | 9002923 | 2 | Legrest cable, Alex | ALP12569 |